

The Environmental Viewpoint

Vol. II, No. 2 March, 1972 75¢

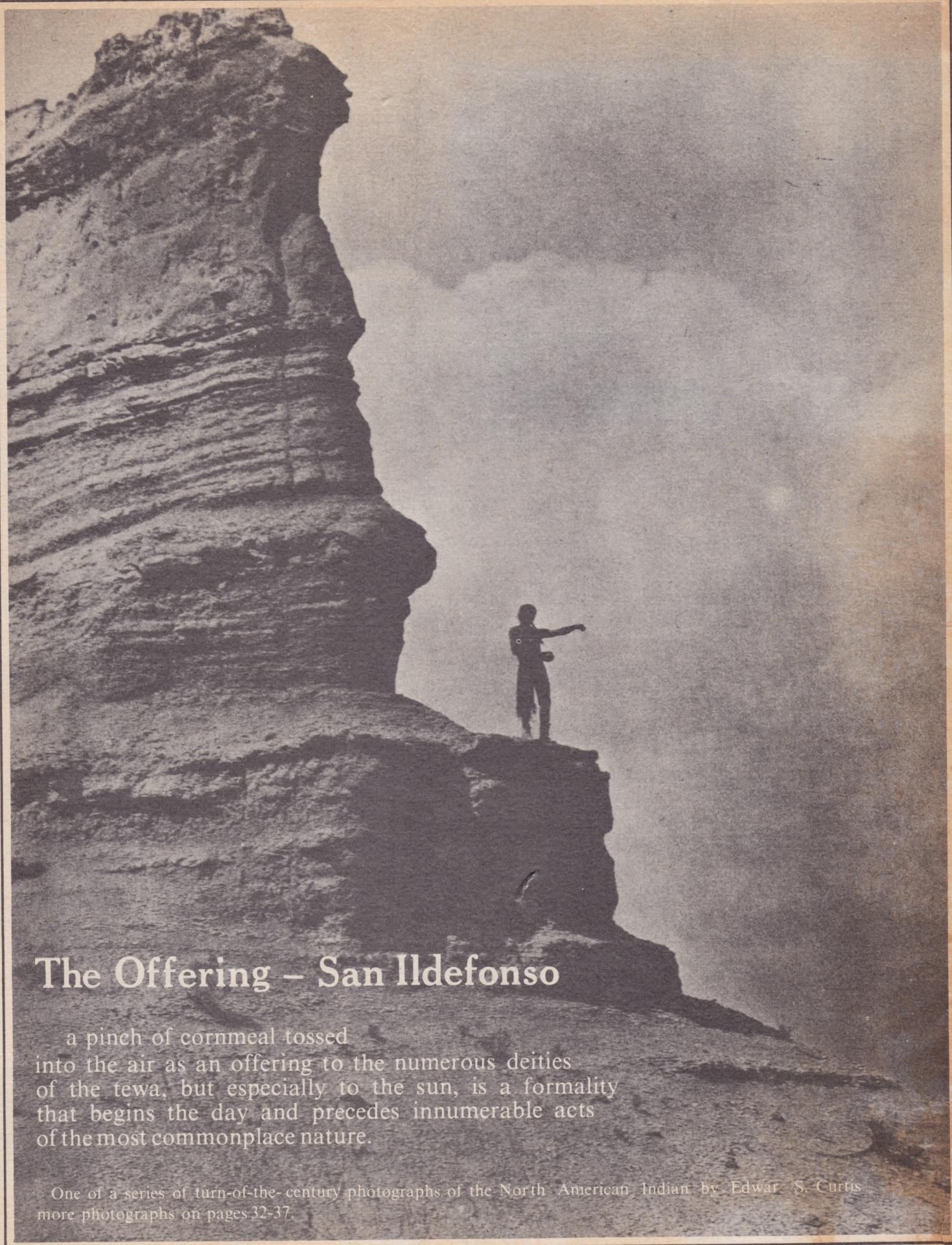
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Clear Creek

ECOLOGY BACKLASH:

*The
Selling
of the
Environment*

Recycling recycling • Earth Missile Base
Wombats & Sacred Cow • World Ecology Inc.



The Offering – San Ildefonso

a pinch of cornmeal tossed into the air as an offering to the numerous deities of the tewa, but especially to the sun, is a formality that begins the day and precedes innumerable acts of the most commonplace nature.

One of a series of turn-of-the-century photographs of the North American Indian by Edward S. Curtis
more photographs on pages 32-37.



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Volume II
Number 2

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STAFF • *Editor:* Pennfield Jensen • *Art Director:* Don McCartney
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• *Indian Affairs:* Indians of All Tribes • *With help from our friends:* Donna Dobkin, Polly Roberts, Chong Lee, Susan Herzig, Ann Kelley.

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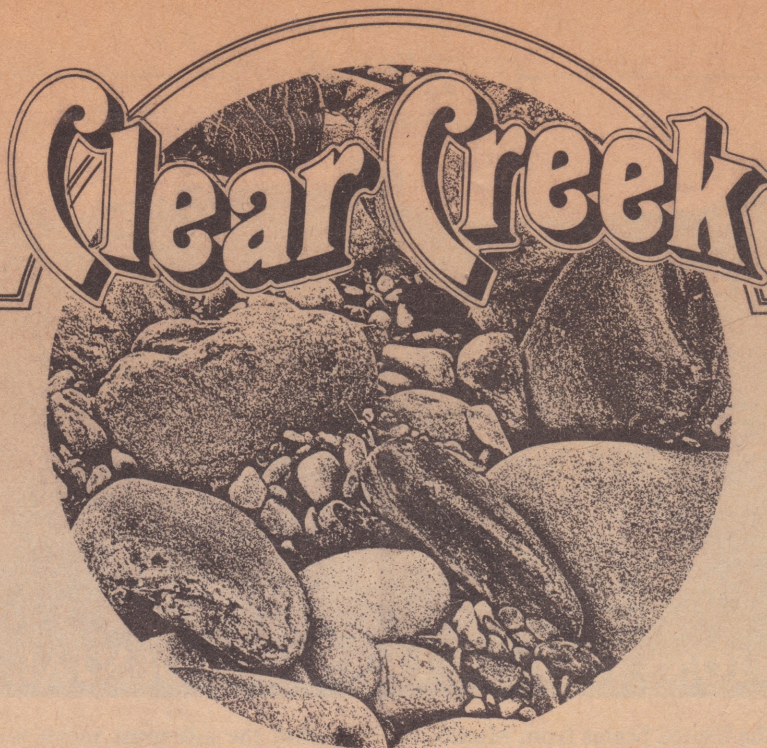
STATE

ZIP

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Cover photo by Hank Lebo

Terrence Moore

ILLUMINATIONS FROM A TRANSCENDENTAL ROOT BEER

One route back into the United States from Mexico is through Sonoyta on the Mexican side, Lukeville on the American, through Organ Pipe National Monument and on through the vast ranges of depleted grasslands and ragged desert in Southwest Arizona. On this road, after the refreshing stop at the Visitor's Center at Organ Pipe with its immaculate toilets (hot and cold running water, paper for the toilet seats, ah, America, you sweet rascal, you) one passes through miles and miles of ballistic missile testing ranges, secret weaponry installation experiments, and simply a lot of land owned outright by the Military in one form or another.

The pentagon settles upon the car like an anesthetized eagle. We have entered the land of Barry Goldwater and James Bond. Paranoid fantasies grip the mind—helicopters and jeeps descend upon the road, our cars are searched, our precious contraband is located! Aha, fourteen ki's of Acapulco Renaissance! Haul 'em in boys. An orange and white striped missile launcher looms over cottonwoods beside a distant dry wash. The land is more than ominous—it is overgrazed.

Around a bend, the road stretches out to infinity, a huge gray-green mesa at its end. Something wrong about that mesa, too perfect. Ah, a smokestack rises from its absolute center. Closer and closer, larger and larger, great levelled slag heaps a hundred feet tall, two miles long, the greenish slur of copper salts mixed with ash and burnt rock.

There are no identifying signs. None. Just warnings. "Do not stop. Loitering absolutely forbidden. Violators will be prosecuted to the fullest extent of the law." The fullest extent of the law is the length your neck will stretch in a rawhide noose? Men in yellow and red hardhats, tan slacks, Highway Patrol blue nylon jackets with phony fur collars. A small fortune in Ford Broncos parked behind barbed wire. In the distance lurk huge machines of vast, efficient, and mysterious purpose. This

is what the ads must mean when they say, "own a piece of the rock."

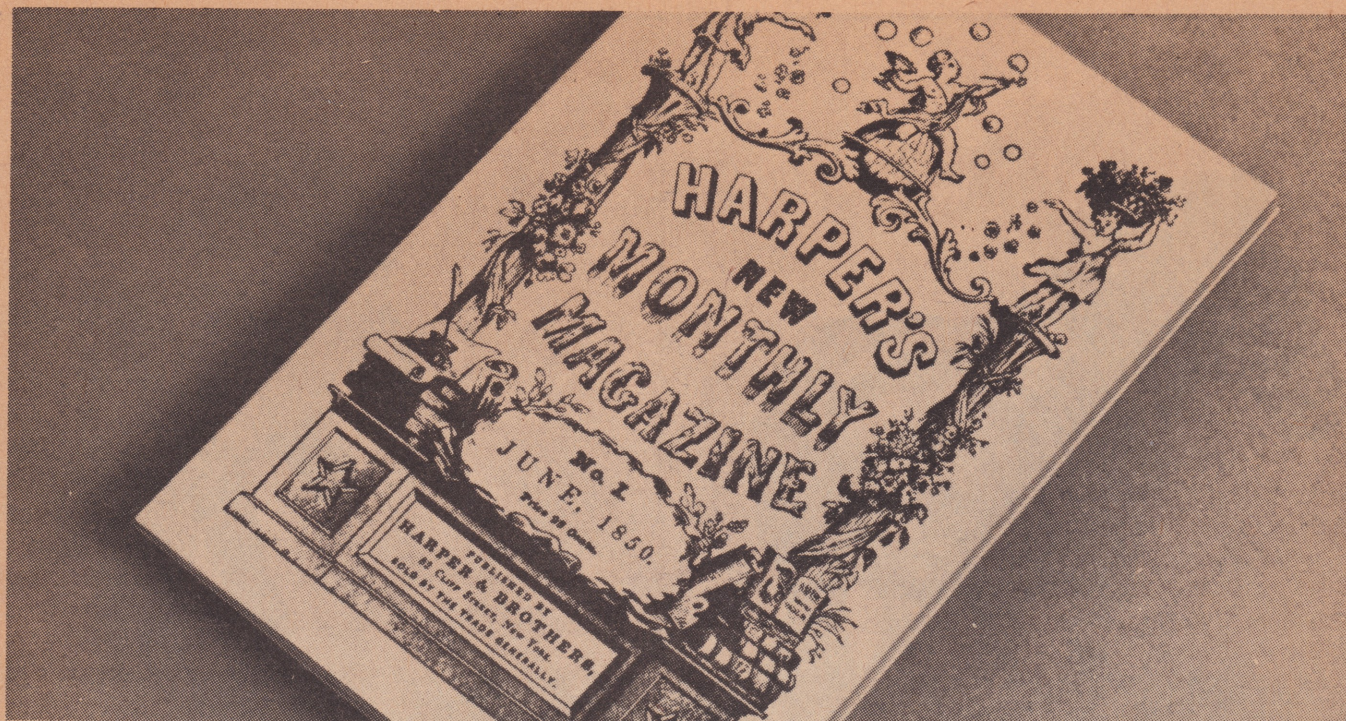
The sign says, "Slow to 35. Ajo. Pop. 7,049. Lions Club Welcomes You." We stop at the Ajo (as the Navajo) A&W. "What is it?" I ask the girl in white behind the double glass. Two men who look like secret service cowboys watch us from a pickup truck.

"Phelps Dodge." She answers. "Copper. 90% of it goes to the Military. Owns the town." She giggles. She pushes a white package out on the shelf. The cowboy feds come and get it. The road winds on into the Papago vastness.

Maybe we lunge spasmodically toward the zinc coated Cyclone fence in rage and piqued futility. Then what do we get? The names get changed—People's Power, Commune Coal Collective, Third World Airlines—but will there really be a difference in the end?

As a species, mankind is genetically wedded to his technology. The mechanical bride has consummated her marriage. We are the children of that union living in the ominous shadows of our strange parents, but bound inextricably to their fate. There is some vague consolation in the knowledge that all species are technologies, that the means by which they survive identifies them. So it is with us. We are our technology to a very great extent. In the bombs, the pollution, the insidious grasp our economies have on the flesh of the planet, is held the entropy of a species.

The road winds into the Technocene—Phoenix, Prescott. Cities living even though they're dead. The Hopi culture is now dependent completely on pick-up trucks. There is no going back for any species, for any individual, only going forward. What lies ahead? There is one imperative. That we transcend our technology, evolve *through* it to that place wherein Mankind can bring his technology to a basic minimum level before it brings him to his knees.



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When any magazine gets that far along, it isn't even Establishment any more. And because it doesn't have to prove itself, it can afford to be a little loose. Ready to take a chance, try the unexpected, and maybe shake up a few people. Or institutions.

Which describes *Harper's* editors pretty well. They don't play to your conditioned reflexes. They talk straight—not down. And they never set out to confirm your opinions; they'd rather question them. With a maverick of an article. A different point of view. Or an unlikely author.

San Quentin's race riot —from the inside

Like the man who wrote our recent piece about the bloody riots at San Quentin. He told a sad and frightening story. He could—because he was no after-the-fact reporter. He was a "con" who lived through it all.

Harper's also published a conversation between Studs Terkel and Daniel Ellsberg. They talked about the powerlessness of men in power, and it was the kind of talk you don't hear in many places. Or read in many magazines.

Would you expect *Harper's* to call the U.S. Board of Parole deaf, dumb, and blind? Or take a strong swipe at the phoniness of the "new realism" on movie screens today? Or report candidly on the moral confusion within the American Catholic hierarchy?

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Sage Reflections & Sober Moments

Everything flows and nothing abides; everything gives way and nothing stays fixed.

You cannot step twice into the same river, for other waters are continually flowing on.

—Heraclitus

In times of danger, stay low and zig-zag.

—Larry Janss

FEUDALISM

The domination of what is left of rural America by agribusiness corporations is not only accelerating the migration patterns of recent decades, but raises the spectre of a kind of 20th century agricultural feudalism in the culture that remains.

—Nick Kotz
Washington Post

WORTHLESS

According to Senator Philip Hart's studies, "planned obsolescence," price-fixing and poor quality goods and services take at least 25 percent of every consumer dollar without returning any value.

—Ralph Nader

QUESTION

It pays to know there is just as much future as there is past. The only thing it doesn't pay to be sure of is man's part in it.

—Loren Eisely
The Immense Journey

RESPONSE

With all beings and all things we shall be as relatives.

—Sioux Indian

FUNDAMENT

We who are alive now must attempt to be the last generation that views themselves as MAN and must set the beginnings of an intellectual fundament so that our children may be mammals.

—Michael McClure

Always gamble more than you can afford to lose and then you will learn how to play the game.

—Winston Churchill

CAPITALISM CRUNCH

The destruction of the biosphere as a suitable habitat for life as we know it is not simply a matter of too many people or that some people consume too much of



the other's share, but is rooted in the systemic imbalance between the capitalist organization of society and the life-sustaining capacity of this planet. The daily imposition of capitalism upon functioning of the life support system exacerbates geometrically the future of biological evolution.

—Barry Weisberg
Beyond Repair
Beacon Press

LAWYER LAND

There is no British equivalent to your environmental impact statement, nor do I intend to have one. I personally think it is the duty of any government department to pursue high-quality decisions in terms of the environment and they should be severely, publicly chastised if they don't. And I personally think the environ-

mental impact statement, like a number of other decisions in the past, really makes a land fit for lawyers to live in with no great impact on the environment itself.

—Peter Walker
Head of England's
Dept. of the Environment

The wise man looks into space and does not regard the small as too little, nor the great as too big; for he knows that there is no limit to dimensions.

—Lao-tse

UNKNOWNNS

Of all foods available to homemakers today, nearly 70 percent were *not even known* less than twenty years ago.

—Organic Consumer Report

AUDIENCE

We know who you are. This is our message: most of us are rendered useless to the productive process; soon we will elevate you to our condition.

POSSIBILITIES

The problems are only equaled by the possibilities: every mistake made is redeemed when it is understood.

—Germaine Greer
The Female Eunuch

May the long time sun shine upon you, all love surround you, and the pure light within you guide you all the way on.

—The Incredible String Band

Stockholm Stagger, Part II



IYCHE Fingers Seek Scratch

The North American delegation from the International Youth Conference on the Human Environment (IYCHE) has launched a continental tour of college campuses under the code-name Project Meristem. Meristem, according to founders Cliff Humphrey (Ecology Action) and Ross Vincent (Louisiana Ecology Center and U.S. youth delegate to Stockholm), is the embryonic tissue present at all points of growth and regeneration in plants.

The tour, held in conjunction with Canadian youth delegate David McCreery, hopes to span the continent in search of information, testimony and funds to further the youth effort and the alternative conference planned for Stockholm. The design for the alternative conference, or Forum, it has been termed by Stockholm officials, will be based on the outcome of projects similar to Meristem being planned around the world.

The proposed tour, whose schedule as announced appears below, is also appealing for financial support. Margaret Mead gave half of her recent UNESCO Kalinga Award to the International Youth Conference. The tour itself proposes the form of testimonial hearings, the proceedings from which will be documented and presented to Maurice Strong, Secretary General of the Stockholm Conference.

SCHEDULE OF HEARINGS

DATE	LOCATION	FOCUS
Feb. 4-5	San Francisco <i>Contact:</i> Ron Eber, Sierra Club 1050 Mills Tower San Francisco, Ca. 94104 (415) 981-8634	International Environment Issues and Questions
Feb. 18-19	Denver, Colorado <i>Contact:</i> Morey Wolfson, Environmental Action Committee 1100 14th Street Denver, Colorado 80202 (303) 534-1602	Natural Resources and National Sovereignty
March 2-3	Austin, Texas <i>Contact:</i> David Reynolds 2910 Red River No. 304 Austin, Texas 78705 (512) 472-5629	Human Settlements; Urbanization
March 18-19	New York <i>Contact:</i> Chris Stix 385 Underhill Road Scarsdale, New York 10583 (914) 723-8052	Stockholm Agenda, Inter- national Environmental Action Programs for Youth, International Organizational Implications
March 30-31	Detroit <i>Contact:</i> William Kopper Institute for Environmental Quality University of Michigan, N. Campus Ann Arbor, Michigan 48105 (313) 763-3515	The Worker and the En- vironment; The Role of the Multinational Corporation
April 27-28	Washington, D.C. <i>Contact:</i> William Painter Washington Ecology Center 2000 P Street NW Washington, D.C. (202) 833-1778	United States and Cana- dian Preparations for Stockholm; Field Reports and Tour Wrap-up

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- 4** Why Asians make better politicians than Westerners.
- 5** Do men need more recreation than women?
- 6** Why it may be time to end the taboo against incest.
- 7** What kind of parents do hippies make?
- 8** The inferiority feelings of men who seek corporate power.
- 9** Are campus activists rebelling against the system—or their parents?
- 10** What your daydreams reveal about your ethnic background.
- 11** Why do swingers tend to become impotent?
- 12** Is it time to grant the right to commit suicide?
- 13** Does a child think before he can talk?
- 14** Why are today's students attracted to violence?
- 15** Are "hawks" sexually repressed?
- 16** Are some men born criminals?
- 17** What the schizophrenic is trying to tell us.



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News

PLANET WINS AT POLLS

SACRAMENTO—

Last month Clear Creek told you about three young, ecology conscious homeowners in California who set an important electoral/environmental precedent when they unseated a rancher-dominated group and took control of the Goleta County Water District. (CC Vol. II, No. 1, p. 12)

A precedent, indeed, it proved to be as this month we bring you another electoral victory story—this time from Ronnie Reagan country in the California state capitol. What follows is the report of "Sacramento Citizens to Elect Environmentally Concerned Candidates"—a group of people who backed up their ecological concern with some concrete action. A trend, perhaps?

Like many cities, Sacramento has been suffering from the effects of urban sprawl and the many resultant environmental consequences. With problems like those you don't need a City Council that spent two months of delay before allowing the Ecology Information Center to put notices of their recycling drives in the city garbage bills, and had shown almost a total lack of concern for environmental problems in other areas as well.

Recognizing this lack of concern, a group of people formed to try and elect a new City Council in the recent elections. We (Sacramento Citizens to Elect Environmentally Concerned Candidates) feel that we were very successful. Out of the seven candidates we endorsed in nine districts, six won, and the seventh lost by only 138 votes (out of about 7,000).

While it would be unrealistic to think that our efforts were the predominant reason for all the victories (as the candidates were strong and hard-working themselves), our efforts did help, and we certainly raised issues and educated both the public and the candidates on the importance of local environmental issues.

We started our City Council election effort by bringing together a group of community environmental leaders to discuss 1) the best strategy to follow and 2) the issues most important to push. From this, some of the members composed a rigorous questionnaire on environmental issues in Sacramento and sent it, along

with a cover letter explaining who we were and what we were doing, to all the candidates who had filed to run.

The questionnaire had two purposes: 1) to evaluate the candidates in terms of their environmental stands and 2) to introduce them to what we felt were the major environmental issues. The issue they later spoke of were, in fact, the ones we had raised in the questionnaire.

Those with the most favorable responses on the questionnaire were interviewed, and on the basis of that interview, their background, and other factors, we endorsed seven candidates in the nine district races.

Next we issued news releases and held a press conference with the candidates present. Representatives of the group and the candidates spoke on the issues, and we told about ourselves, and urged people to vote for these candidates.

The media coverage was an important part of our strategy. We had made efforts earlier to contact and become friends with some local reporters and they worked with us in getting publicity before the public.

The next step was to prepare brochures on our candidates, giving information about our group, the candidates we were endorsing, and the stands they were taking on the issues. (The issues in-

cluded urban sprawl and how to control it, mass transit, recycling through regular city-county trash pick-ups, and best methods of approach to environmental planning.)

For the primary we made one general brochure for all the candidates and distributed it at shopping centers, door-to-door, etc. For the final election, when there were fewer candidates, we prepared individual brochures in greater depth, and distributed them mainly door-to-door in the areas where they were most needed.

We had about 5 or 6 active core people in our group, and about 15 or 20 others who helped us at various times. The entire project was funded on about \$300 obtained from appeals sent out to people on the mailing lists of local environmental groups.

Following the success of the election, the Environmental Council of Sacramento sponsored a seminar for the new City Council and the County Board of Supervisors on environmental problems of the Sacramento area. (The man who narrowly defeated our seventh candidate by 138 votes, after having been substantially ahead in the primary, was the first one to show up at the seminar.)

In the first four meetings immediately after taking office, the new City Council rejected a plan for development along the Sacramento River, announced a moratorium on further development until standards can be prepared guaranteeing public access to the river, and assigned some city staff members (over the objections of the City Manager) to work with county staff members on a comprehensive study of Sacramento's environmental problems. Then the Council members drew up ordinances to regulate noise and land use in housing projects (to guarantee a certain amount of park space), and then started work on a proposal for an Environmental Protection Agency.

Sacramento Citizens to Elect Environmentally Concerned Candidates plans to continue its work in the primary this spring, in the general election next fall for the County Board of Supervisors and the Board of Directors of the Sacramento Municipal Utility District. We may also consider our state legislators and federal representatives as well.

—Bruce McNitt

Other localities take note—you can make it happen where you live, too. If you would like a list of additional strategies and suggestions for electing environmentally responsible public officials in your area, write: Sacramento Citizens to Elect Environmentally Concerned Candidates, 1221 20th St., Sacramento, Ca. 95814, Attn: Bruce McNitt.

What You Can Do

Write:

US Rep. Wayne Aspinall
Federal Building
402 Rood Ave.
Grand Junction, Col. 81501
and
Sen. Dominick
Federal Office Bldg.
1961 Stout St.
Denver, Col. 80202
(to urge legislation to require the
AEC to clean up its radio-active
mess—see p. 16)

Send:

Petitions to
Rolling Thunder
Box 707
Carlin, Nev. 89822
(to protest government destruction of trees—see p. 59)

Stop:

Buying the garbage this country
produces (and start recycling—
see pp. 38-42)



What every old democrat should know about the new democrat.

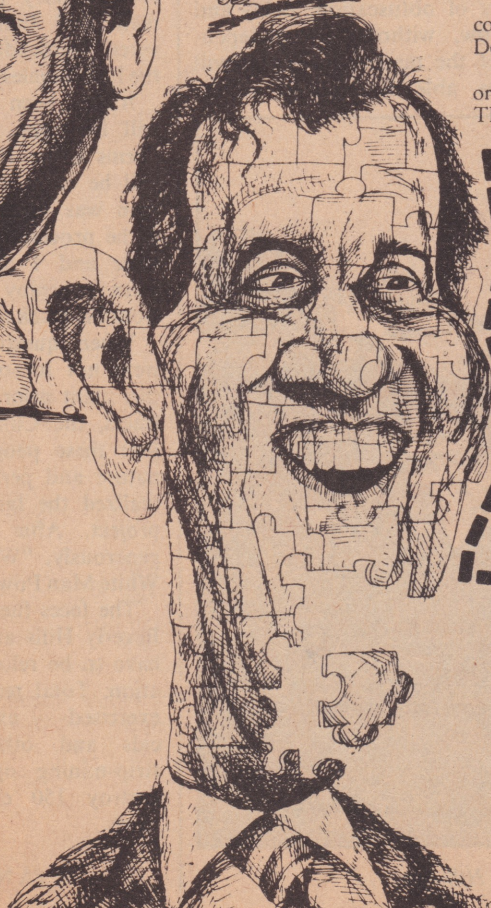
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News

FDA PROTECTS PRIVATE INTERESTS

STANFORD, CA—

For nearly a year and a half now, Dale Hattis, an ex-Nader's Raider and current Stanford University Medical Center graduate student, has been trying to get access to food additive and pesticide petitions which the Food and Drug Administration uses in determining safety for public use.

The original request was made by Hattis on July 7, 1970. Numerous inquiries and promptings by two US Congressmen finally, late last September, elicited a reply dated June 21, 1971, of which Hattis received only a *copy* via the sympathetic Congressmen.

The FDA's reply appeared to offer a way to get *some* of the information sought, albeit by a very cumbersome, costly and time consuming procedure. Following the instructions in that reply, however, Hattis selected two petitions which might contain most of the data he needed, and asked for the relevant sections of those petitions. This time Hattis was joined by the Environmental Defense

Fund in making his formal request.

Instead of sending the requested information as they had implied they would, the FDA responded, "Toxicological and other technical information is valuable commercial property that is regarded as confidential information." Thus after seventeen months of delay, Hattis and the Environmental Defense Fund are now forced to go to court to get any of the information originally sought.

As Hattis points out, the issue is much broader than the scientific adequacy of the data FDA uses in determining the safety of various food additives—although the resistance the FDA is putting up suggests they're not too proud of some of their information. The real issue, Hattis contends, is the ability of the government to stifle informed public review of policies by obstructing public access to the information on which those policies are based.

A basic administrative reform that is needed is that no agency should have primary control over what gets disclosed from its own files. For the FDA to be given the power to decide whether or not material possibly embarrassing to them ought to be disclosed involves a clear conflict of interest.

Hattis sums it up: "The FDA has given us an elegant demonstration of its considerable powers of obfuscation, delay and harassment. Now, without any independent review of the matter, the FDA will presumably be able to expend public

funds in a long court fight to secure further delay. If I hadn't been able to interest the Environmental Defense Fund in lending free legal help, I wouldn't have had a prayer."

Last November Hattis also made requests to the Environmental Protection Agency for other petitions (DDVP and Hexachlorophene) and two months later likewise got the run-around. Mr. Hattis and *Clear Creek* both conclude that the Freedom of Information Act is in need of some drastic re-evaluation and improvement.

NAVAJOS PLAN POWER PLANT: WHITE MAN TASTES OWN MEDICINE

LOS ANGELES—

The Chinle good-guys have announced plans to construct a large power plant in downtown Los Angeles in view of the increasing demand for power on the reservation.

The engineering students at Navajo Community College have designed a new revolutionary plant that runs on excrement and Indian geologists have discovered tremendous reservoirs of crap in the Los Angeles area.

It has been casually noted that there will be some pollution from the plant. Seems some 1000 tons of pure fecoxide will be emitted daily. An Indian spokesman was reluctant to call this pollution as he proclaimed, "It is only a matter of taste and I am sure these people will learn to enjoy brown skys as a change from the black ones they now have."

When questioned why local residents were not informed of the full effects of this plant prior to the signing of the contracts, the Chinle good-guys pointed out that these people were rather simple in nature and perhaps they would not have realized the far reaching benefits of this project. After all, said the good-guys generously, "We are even naming it the White Man Power Project!"

The feces fuel will be strip-mined in the Beverly Hills area and 50,000 people will have to be relocated because of the operation. Total reclamation of the area will be exercised — except for pits, mounds, acids and other effects incidental to strip-mining operations. The mine will destroy 150 churches and four graveyards.

—Dine Baa Han

(A Navajo Newspaper Published for the Navajo Nation)



B.C. Hydro

"The feces fuel will be strip-mined in the Beverly Hill Area . . ."

dizzy gillespie • benny goodman • louis armstrong • stan kenton • laurindo almeida • james moody •
 django reinhardt • john lewis • milt jackson • john coltrane • j.j. johnson • billy holiday • art pepper • gerry
 mulligan • charlie parker • bessie smith • bill holman • stan getz • charles mingus • b.b. king • gil evans •
 hi-lo's • johnny smith • george shearing • swingle singers • pepper adams • claude thornhill • freddie redd
 • jackie mclean • carmen mcrae • bud powell • cannon ball adderly • miles davis • gary mcfarland • wes
 montgomery • alice coltrane • yussef lateef • dave pike • bill evans • maynard ferguson • zoot sims •
 chuck mangione • art blakey • max roach • clifford brown • woody shaw • red norvo • charles lloyd •
 pharoh sanders • otatunji • modern jazz quartet • lenny bruce • kenny burrell • ella fitzgerald • horace
 silver • blue mitchell • harold land • bobby hutcherson • tony williams • major holley • toots thielman •
 quincy jones • kenny clarke • francy boland • les mccann • joe henderson • leon thomas • pearl bailey • lee
 morgan • wayne shorter • nat adderly • chris conner • john lee hooker • airtio • flip philips • earl hines •
 lionel hampton • paul bley • louis belleson • buddy montgomery • art blakey • dave brubeck • paul
 desmond • john mclaughlin • archie sheep • lee konitz • lennie tritano • brew moore • lester young • paul
 horn • gene ammons • kenny drew • gato barbierrri • herbie manne • mel lewis • conte candoli • shelly
 manne • thelonious monk • cal tjader • mongo santamaria • don ellis • dwike mitchel • willie ruff • gabor
 szabo • ron carter • don sebesky • thad jones • ruth brown • edu lobo • bola sete • chic corea • santana •
 george benson • dave holland • mose allison • freddie hubbard • mark murphy • chet baker • percy heath •
 gene mcdaniels • connie kay • isaac hayes • pete jolly • clark terry • phil woods • oliver nelson • al cohn •
 etta jones • glen miller • bob brookmeyer • stanley turrentine • sarah vaughn • joe williams • count basie •
 woody herman • sal nistico • steve kuhn • paul chambers • philly joe jones • sam most • charlie byrd • joao
 gilberto • boots mussuli • serge chaloff • jimmy smith • lawrence brown • duke ellington • johnny hodes •
 sonny terry • brownie mcghee • billy strayhorn • jeremy steig • eddie gomez • ray brown • oscar peterson •
 jim hall • herb ellis • oscar Pettiford • gigi gryce • art farmer • charles mcperson • wardel gray • harry
 carney • coleman hawkins • john handy • jo jones • sergio mendes • jaki byard • kai wila • bill cosby •
 benny carter • ornette coleman • benny barth • albert ayler • betty carter • abbie lincoln • sonny simmons
 • mike longo • don cherry • esther philips • tom scott • budd johnson • trummy young • harold mabern •
 george duke • ed thigpen • tommy turrentine • jean-luc ponty • bix beiderbecke • paul winter • joe morello
 • harold grimes • claus ogerman • mccooy tyner • helen forrest • david young • jimmy garrison • joe beck
 • shorty rogers • mel torme • cab calloway • pee wee russell • mike nock • gary burton • george russell •
 • buddy rich • ron mcclure • wynton kelly • sonny stitt • harry james • charley barnet • snooky young •
 scott la faro • dave tough • frank sinatra • gene krupa • chick webb • george van epps • fats waller • joe
 zawinul • jack teagarden • gary bartz • beaver & krause • bud shank • michael bloomfield • carla bley •
 • karl berger • carlos garnet • garnet brown • donald byrd • duke pearson • mel brown • arthur prysock •
 hadley caliman • carmel jones • gerald wilson • nat king cole • gloria coleman • joe sullivan • larry coryell
 • steve swallow • michael gibbs • kenny cox • leon thomas • beaver harris • sam rivers • herb pomeroy •
 toshiko • charlie mariano • jack daugherty • jack dejohnette • joao donato • bob dorrough • joe farrell •
 claude williamson • teabone walker • curtis fuller • fourth way • dreams • randy brecker • hal galper •
 astrud gilberto • ray brown • leroy vinegar • chico hamilton • albert stinson • george bohanon • herbie
 hancock • eddie harris • lena horne • lennie hayton • dave hubbard • andrew hill • hampton hawes •
 lionel hampton • ahmad jamal • roger kellaway • curtis counce • russ freeman • charlie persip • frank
 butler • elvin jones • morgana king • hubert laws • rahsaan roland kirk • melvin van peebl • boomer ervin
 • lou levy • john mayall • junior parker • jimmy mcgriff • melvin van peebl • boomer ervin •
 • jack sheldon • buddy montgomery • hank mobley • wayne shorter • sonny red • russell procope • sanny sharro •
 warne marsh • ray nance • sonny red • russell procope • sanny sharro • nina • bud terry •
 art farmer • joe newman • paul quinichette • illinois jacquet • miroslav • jaco • rudd
 • lonnie liston smith • denny zeitlin • ravi shankar • ali akbar kahn • chuck
 isaels • israel crosby • charlie ventura • roy kral • jackie cain • irene • norta •
 mezz mezrow • yank lawson • louis jordan • fletcher henderson • gr • tommy
 flanagan • four freshmen • weather report • michael white • roy eldridge • buddy de franco • tom scott •
 sidney bechet • steve lacey • eric dolphy • james moody • eddie jefferson • king pleasure • shu berry • joe
 williams • dave lambert • jon hendricks • annie ross • ronnie scott • kate drey • gene
 ammons • art tatum • errol garner • paul bley • louis hayes • sal salvado • le • evin •
 martial solal • chano pozo • juan tizol • teddy wilson • marion mcpartland • william • tate
 • erskine hawkins • slam stewart • willie smith • jimmy rushing • jimmy • j • hards •
 gene quill • leo parker • rafael garret • al porcino • pete candoli • don • la • lux
 lewis • bill harris • gil evans • nick fatool • tommy dorsey • kenny dor • dameron
 • cozy cole • billy bauer • cat anderson • ted heath • george auld • m • mcghee •
 candido • anita o'day • shirley horn • bob cooper • vic feldman • hank • ephane
 grappely • nat pierce • muddy waters • gigi bryce • jackie paris • lou rawls • attila zoner • albert
 manglesdorff • roberta flack • dinah washington • june christy • bobby • taylor
 • lalo schiffrin • clare fischer • stuff smith • oliver nelson • irene reid • monica zetterlund • mary anne mc
 call • lucky thompson • johnny williams • frank rosolino • artie shaw • bob prince • jimmy raney • phineas
 newborn jr. • don byas • johnny dankworth • etc.

KJAZ
 BAY AREA
 JAZZ

News

LAND REFORM NOW

SAN FRANCISCO—

A self-proclaimed, loosely structured group of citizens and organizations called the National Coalition for Land Reform (NCLR) has started working on the East and West coasts and is soon to branch out to the South and Midwest.

Founded on the idea that "ownership of land by those who work and live on it is the key to alleviating rural poverty, easing urban overcrowding, reducing

welfare costs and unemployment, and protecting the rural environment," the Coalition seeks such reforms through educational, legal and political action.

While in the past such efforts as Ralph Nader's investigations, Senate subcommittee hearings, and the report of the President's Commission on Rural Poverty have helped expose the problem, NCLR feels present laws do nothing to prevent the continuing corporate abuse of land and power in rural America.

With an increasing percentage of the most productive land in the hands of absentee landlords and giant corporations, NCLR is fighting to combat the emergence of a "new form of feudalism" that is sending a steady flood of people to urban ghettos. Many small farmers have been driven off their land and replaced by home developments.

In striving to preserve the rights of the small farmer and the land itself, NCLR states: "The large corporations that increasingly dominate agriculture show too little respect for the eco-system or the wholesomeness of the food we eat—spray now and pay later seems to be their motto."

NCLR does not offer one tidy solution to the problem of concentration of land ownership and the abuse of land, but instead suggests that each area of the country needs different solutions. For all American land, however, NCLR seeks "enforcement of acreage limitations, application of antitrust laws to agriculture, and re-structuring of tax laws and subsidies to favor working farmers rather than large land owners.

Keeping the belief in mind that the "land is a finite and precious resource which ultimately belongs to all of the people," NCLR is now asking for the people's support. To offer ideas or obtain more information, write to the National Coalition For Land Reform 126 Hyde Street, Suite 101, San Francisco, Ca. 94102 or 1878 Massachusetts Avenue, Cambridge, Ma. 02140.

LATE MODEL FUTURE SHOCK

WOLSBURG, GERMANY—

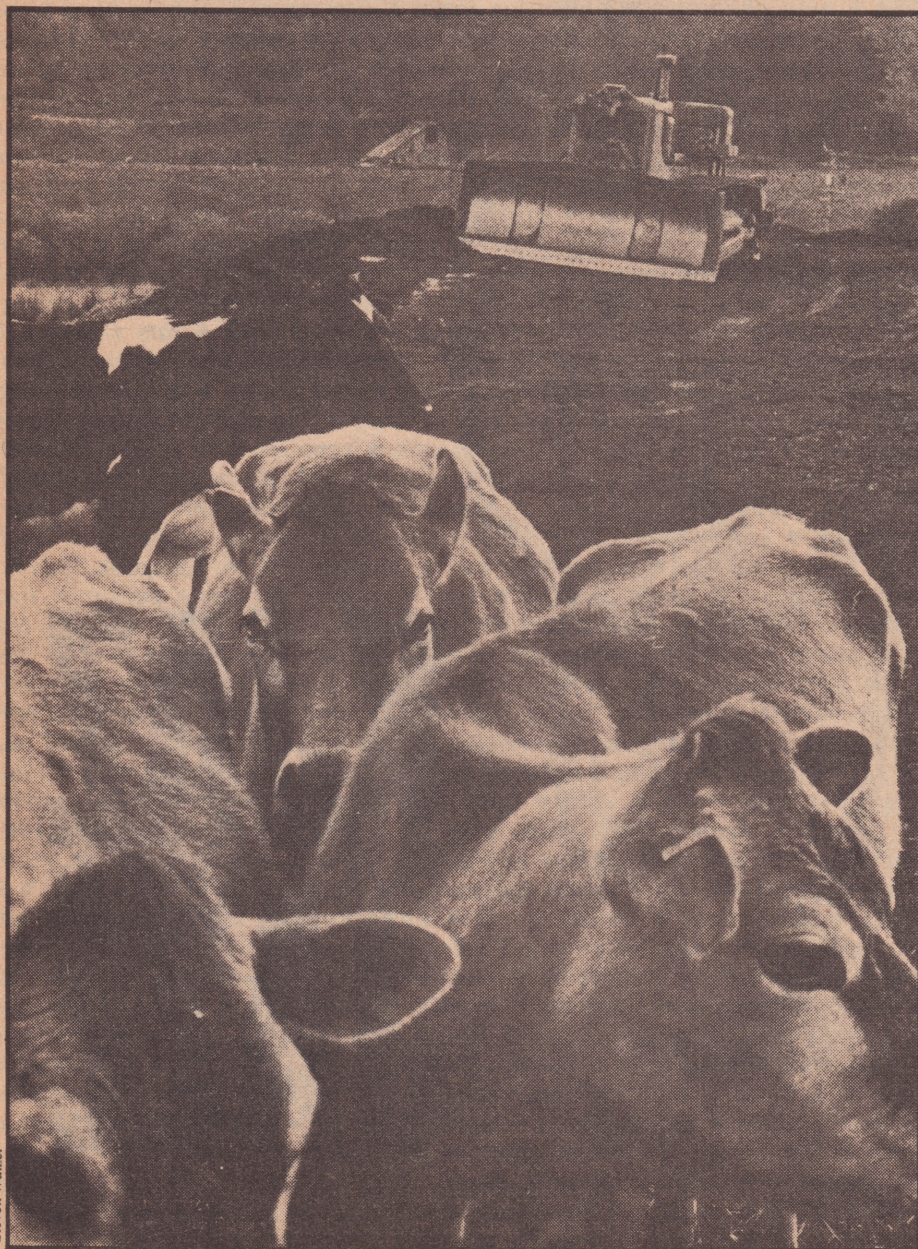
In keeping with our throwaway culture, European car manufacturers are coming up with a throwaway automobile costing \$300 to \$400 that can be scrapped after about 9,000 miles. "What's it going to be made of, paper?" laughed a Volkswagen spokesman.

According to *Europa*, a leading European magazine, several manufacturers including Volvo, Toyota and Volkswagen were not laughing off the idea. Instead they were studying ways to develop such a car. One European firm has already tested a prototype to be displayed at the New York Auto Show this spring.

While the public will not see its first disposable car until 1975, *Europa* describes the vehicle as one stamped from a single sheet of metal with an inflatable rubber bumper around it for safety.

"Similarly there is no need for replacement parts because the car will be built as a factory-sealed system, rather like a cigarette lighter which cannot be refueled, but has a set life expectancy. The engine will pull out like a drawer for such minor servicing as oil changes," reports *Europa*.

Don't let this throwaway auto business throw you. It's just some late model future shock...



Steven Walzer

OIL THREATENS SOUND

CORDOVA, ALASKA—

The Alaskan fishermen are girding themselves for battle with the oil industry over the industry's plan to construct massive oil transfer and supertanker facilities in Prince William Sound, near the towns of Valdez and Cordova, Alaska.

According to Ross Mullins, chairman of the Marine Pollution Committee of the Cordova District Fisheries Union, "the Alaskan fishermen are fighting for their very existence, and will bring suit in federal court to prevent the development of the trans-Alaska pipeline terminal on the Alaskan coast."

With well over two thousand miles of rugged shoreline, Prince William is one of the great natural sounds in North America. It is a wildlife resource as well as a fishery, and in addition to its 679 salmon spawning streams, the Sound houses sea otters, sea lions, hair seals, porpoises, bowhead whales, killer whales, waterfowl, shorebirds and is a habitat for many migrating species as well.

According to the University of Alaska, Prudhoe Bay has oil reserves totaling 50 billion barrels. This would indicate supertankers on the Alaska coast for at least 70 years. It is hard to envision a resource as fragile as a salmon fishery surviving that kind of encroachment.

In an environmental impact statement dated January, 1971, the U.S. Department of the Interior indicated "There will be considerable tankship traffic to transport oil through Prince William Sound, the Gulf of Alaska and other waters. Although the frequency and volumes of spills cannot be predicted, the volume handled is expected to result in some biologically significant losses to the marine environment. The productive littoral and intertidal zones of the Sound would be particularly vulnerable, both to gradual deterioration resulting from chronic low level pollution and to the short and long-term effect of major spills."

The oil interests, of course, have a somewhat different view of things. E.L. Patton, Chairman of the Alyeska Pipeline Service Company, wonders what all the controversy is about. He recently told the Valdez press at a luncheon that some industry people are maintaining two tanks of fish, one of which is receiving a controlled amount of Prudhoe Bay crude oil. He said that the oil-fed fish appeared to be fatter and healthier than those in the control tank.

—Roger Lubin



MARTHA MITCHELL POLLUTED

WASHINGTON, D.C.—

Martha Mitchell recently learned that the black smoke near her apartment came from the very heating plant that serves the White House and her husband's Justice Department Offices.

Mrs. Mitchell is not a person to remain silent when something bugs her: "It's such a shame that these people violate the air pollution laws, especially if the government does it."

Mrs. Mitchell places both the city and federal government among the regular air pollution violators, though none have been prosecuted. Her original complaint

did lead, however, to a formal violation notice against the federal west heating plant in northwest Washington. She calls about every six weeks concerning one violator or another that she spots from her apartment.

"Air pollution around here is perfectly terrible. The dirt is unbelievable. It's like a New York City apartment... My husband sat here and saw this and said, 'you get on the phone and do something about it,'" Mrs. Mitchell said.

"I called the mayor's office and got the runaround from about 16 people. Then I told them who I was!" she said.

If Martha Mitchell has trouble eliciting a response from the perpetrators of air pollution, pity the soft-spoken, anonymous citizen.

SOVIET SIN SINKS SEVAN

SEVAN, USSR—

After years of closely following the Leninist faith in electric power projects to spur modernization, the Soviets are now facing the predictable environmental consequences of such a policy.

The Soviets, however, are tackling the situation head-on. For openers they've launched a \$100-million project to save Lake Sevan, a huge inland lake located 6,000 feet above sea level in the beautiful volcanic terrain of the Lesser Caucasus mountains.

Restoring the lake is no easy matter. Already one-third of its waters have been tapped by the culprits—six hydroelectric

power stations and irrigation projects.

The hope remains that Lake Sevan may be preserved as a natural resource and used as a recreation area for Soviet citizens and foreign tourists. The project includes building a dam and running a 30-mile tunnel through rugged, 10,000 foot high mountains. At present 1500 highly paid engineers and construction workers are trying to divert new waters to the lake.

Engineer Sisak G. Sarkisian said the project to save the lake has proven much more difficult than the initial hydroelectric power projects (he worked on both). "Lake Sevan will never go back to the original level, even if we ran the project for 1,000 years," he added.

The Soviets may be swearing under their breath in a different language, but the meaning is universal: "All Power Pollutes!"

News

TIJUANA SLOUGH: EARTH OR CONCRETE

SAN DIEGO—

Environmentalists are struggling here to save one of the few remaining salt-water estuaries in California. According to an Army Corps of Engineers environmental impact study on a proposed \$30 million, 5 mile, concrete-lined, flood control channel, the Tijuana Slough is one of the most biologically and politically unique estuarine areas in California.

The Tijuana River estuary is located in the Southwesternmost corner of the U.S. adjacent to the Mexican border. Proponents of the concrete flood channel argue that an agreement was made with Mexico in a 1967 treaty that a channel would be built jointly. Environmentalists say that there are less damaging, and less expensive alternatives available for flood protection.

A coalition of 15 organizations has formed in the San Diego area to work together against the concrete channel by delaying federal appropriations, calling for public hearings, and proposing alternative designs for flood protection. Petitions have been circulated and in less than a month 5,000 signatures were collected asking the local representative in Congress to withdraw his legislation which would have increased federal expenditures for the project. No action was taken (in Congress) on the matter after Congressman Van Deeren partially submitted to the pressures of environmentalists, and relaxed his position.

It was also recently learned that Mexico has not yet begun to sell the land in the river valley on their side in order to raise the money to build their portion. So it may be another eight years before they begin, and those proponents of the project who scream about treaty obligations argue from a weak position.

The coalition of environmentalists believe that flood protection can be accomplished for the undeveloped valley with a series of earthen dikes. This, they claim, would protect what little existing development there is in the floodplain, and insure that any floodwaters would not back up into the city of Tijuana, Mexico.

Dr. Wendell Gayman, of Ocean Science and Engineering of Long Beach, sounded his warning that construction of the concrete channel would lead to heavy environmental damage in the border area. This

would occur, he said, not necessarily from the channel itself, but from the resulting residential and commercial development that the channel would open the way for.

Dr. Gayman said no development of the slough should be allowed because, "the estuary salt marsh is unquestionably the finest in Southern California, and perhaps the entire state. This rating is based on the purity of the water and the great variety of plants, fish, invertebrates and birds found in the estuarine waters and surrounding wetlands."

In his report, Dr. Gayman states that urbanization of the valley would pave the way for a yacht marina in the middle of the estuary. "Because of extensive pollution, dredging, and construction in California estuaries, most marine organisms are in danger of extinction."

The California State Department of Parks and Recreation has recommended that the Tijuana River estuary and an additional 1300 acres of undeveloped wetlands adjacent to the slough receive environmental protection. Conservationists would like most of the valley acquired for park purposes or designation as a wildlife refuge through state or federal legislation. This, they say, would be cheaper for the taxpayer than construction of a \$30 million-plus channel.

The Corps has stated that neither they nor the federal government can proceed with the proposed design unless the City of San Diego supports the channel. Congressman Van Deeren has also said that he will not go ahead with the project without the complete cooperation and financial backing of the City.

Following the November elections, San Diego now has three new councilmen, a new City Manager, and a young Mayor who ran his campaign with an environmental and controlled-growth platform. A resolution was passed by the new council on December 21 which includes provisions for public hearings, study of alternative designs, and temporary "suspension" of City support for the concrete design. The new City Manager recommended delay in right of way acquisition because of circumstances which have changed since original approval of the project in 1966.

There is a battle in store for local environmentalists as the landowners and other special interests mount their deceptive campaign. They have already begun to pit conservationists against labor and minorities claiming that there will be loss of jobs for the poor if the development is not allowed to take place and the concrete channel is not built. They are using fear tactics to make citizens believe that fantastic damage and loss of life will occur from flooding if the channel is not constructed. Yet the flood plain is almost completely undeveloped!

To help save the Tijuana estuary, the San Diego Ecology Centre has begun a fund-raising drive. A special trust account has been set up for the slough. Contributions will be used for public information purposes and for possible litigation and court costs. Some of the funds may also be used for public acquisition of the land in the river valley so that future generations can enjoy one of California's last estuarine areas. Contributions may be made payable to the TIJUANA SLOUGH FUND, and mailed care of San Diego ECOLOGY CENTRE, P.O. Box 16177, San Diego, Ca. 92116.

—Jim Jacobson

OBITUARY

ESCAMBIA BAY, FLORIDA—

Escambia Bay, seat of a once flourishing seafood industry, a healthy tourist trade and homes with high land values, was recently declared "dead" by state and federal pollution control officials.

The "death" stemmed from the Escambia Chemical Company's September 5th dumping of 29,500 pounds of nitrogen compounds into the Bay. What followed was the grim remains of first degree ecocide: dead fish stacked 14 feet deep in some places, blanketing the water surfaces for miles in every direction. The sight was ungodly and the smell even worse. As the stench of rotting fish spread through the streets, homes and offices of the Escambia Bay area, a public outcry demanded action.

At a state Pollution Board hearing, Escambia Chemical Company *admitted* the massive discharge, but *denied* responsibility for the kills. While their 1971 dumping dealt Escambia Bay the crushing blow, Escambia Chemical disavowed responsibility on the basis that major industries have been causing fish kills in Escambia Bay for years. The laws for pollution control offer no help because they require enforcement officials to pin down the specific cause and source of each particular fish kill before it can be prosecuted.

Specialists agree that it will be many, many years before Escambia Bay will recover, if ever. For the present, commercial productivity, sport fishing and recreation are at a standstill.

The lesson of Escambia Bay must not wait until the stench of rotting fish hits other bay area victims. The laws that place the burden of proof for fish kills on public agencies must be changed. We need laws which permit injured parties to sue collectively and make *the polluters* financially responsible for the damage they cause.



WASH. D.C.—

Those who cried “wolf” and declared Ecology dead, certainly had second thoughts at the end of 1971. Ecology is very much alive, and activities, organizations and legislation are definitely on the increase.

However, accomplishments leave much to be desired: industry and commercial special interests have mounted enormous campaigns against conservation which are reflected in the mountain of unfinished business at the end of the year. All major issues were put over for 1972.

Looking back, some long overdue wildlife protection legislation was accomplished in 1971. H.R. 5060 was signed into law late in 1971, so that a penalty of \$5000 or a year in jail can be meted out against those who harass or kill wildlife from the air. Unfortunately the bill does not carry a minimum sentence, which would have been desirable considering that some judges under local pressure might be swayed to make the sentence as light as possible.

The mustangs—and also our wild burros—were granted a reprieve in 1971, so that the 16,500 mustangs, remnants of our national heritage scattered over some eleven western states, will be saved from slaughter provided there is enforcement instead of a hush-up at local levels.

Last year did *not* see the settlement of the controversy surrounding the protection of ocean mammals. One *management* (instead of protection) bill failed to get the two-thirds majority. Perhaps public pressure against management in this case was generated by a feeling that “management”—hunting and killing permits, and special consideration for commercial fishing interests—is not the answer to the problem, since too many of the

ocean mammals are heading straight for extinction. Another major piece of legislation

did come through: the Native Alaskan Claims bill. The bill gives 40 million acres and over 900 million dollars to the indigenous Alaskan population.

Alaska is the last major stronghold of wildlife in the United States and its ecology is fragile in the extreme. The implementation of Alaskan Claims Settlement (as well as developments regarding the North Slope’s oil extraction) warrant watching this year.

The Ocean Dumping bill fared well in 1971. However, the House version of the bill, which contained a clause creating marine sanctuaries, will only survive if this provision is deleted. The marine sanctuaries provision was attacked by oil interests, who claim energy needs priority over wildlife and coastal protection. Too many of the legislators were listening to that type of reasoning.

Two other major bills were meant to shore up weak legislation of the recent past, but they drew fire from the administration. H.R. 10729, the “Federal Environmental Pesticide Control Act of 1971,” was approved in the same form as it emerged from the Agricultural Committee. However, the Dow Amendment (introduced by Rep. John G. Dow, N.Y.) would have put teeth into this piece of legislation. The amendment provided for stringent restrictions on the chemical industry, while affecting the American farmer very little. Without the Dow Amendment H.R. 10729 curtails the chemical industry’s manufacture and distribution of pesticides only in a minor way.

Environmentalists were certain that the Dow Amendment would pass. However, the House voted the Amendment

down, and accepted instead a very weak substitute. The Dow defeat can be written off as a victim of administration pressure.

The omnibus water pollution bills, H.R. 11895 and H.R. 11896, were identical to Senate bill S.2770, which passed on a unanimous vote (86 to 0) in early November of 1971. These bills constituted a thorough revision of the Federal Water Control Act would have tightened existing legislation. S.2770 would have authorized an appropriation of \$14 billion over four years to assist states and localities in the construction of municipal waste treatment facilities.

In anticipation that this legislation could not be dealt with completely in 1971, the House passed H.R. 11423, which extended the provisions of the old Federal Water Pollution Act into 1972. Predictably, in the December hearings of the House Committee on Public Works, the administration changed its previous stance. Their attitude was clearly pro-industry and undoubtedly involved this year’s presidential elections, since Sen. Muskie was a strong proponent of the tough anti-pollution legislation.

Land use and the connected strip mining and mineral leases issue were the cause of great controversy. Conservationists were on the side of those legislators who wished to see the proliferation of piecemeal legislation swept aside in favor of establishing a new land-use policy with emphasis on multiple use—for once considering the public at large, and not just special interest groups.

Of the different bills brought forward, Sen. Jackson’s (Wash.) S.921 and Congressman John P. Saylor’s (Pa.) H.R.9911 (“Public Domain Lands Organic Act of 1971”) was the one most favored by conservationists (as opposed to S. 2401, sponsored by the administration).

Separate hearings were held on strip mining and strongly opposed views were aired. Sen. Gaylord Nelson (Wis.) described strip mining as “a crime against the environment” and commended S.77 and S.1498 because they sharply curtail the destructive practice.

The threat of the western states becoming another Appalachia is imminent. Nevertheless, the mining industry, typically, supported a substitute for the Mining Act of 1872, the “Mineral Development Act of 1971,” while the administration came up with the “Mined Area Protection Act of 1971”—again favoring industry instead of the environment.

Hearings on energy and power plant siting, as well as the Four-Corners power issue also proved too controversial to be dealt with conclusively in 1971. Many comprehensive issues took up time and energy in 1971, but because of strong polarization most dragged on into 1972—and the battle goes on.

—Ursula Faasii

Energy Coalition News Letter

TROUBLE IN THE CELLAR OR THE ATOMIC BLUES AGAIN

GRAND JUNCTION, COLORADO—

About 5,000 Grand Junction homeowners have been warned by the Colorado State Department of Health that their houses are sitting on top of radioactive uranium wastes.

While the Environmental Protection Agency lists Colorado as the state with the highest average levels of natural radiation, the dangers in Grand Junction are not just a fact of nature. Rather, they are the result of using the waste products from a one-time uranium mill as a *construction fill* for home foundations.

The Health Department calculated that the lungs of the occupants in 10 per cent of those 5,000 houses are known to have been exposed to the the equivalent of more than 553 chest x-rays per year. The estimates for repairing the homes built on radioactive wastes run as high as \$20 million.

Studies show the same situation exists in 14 more Colorado towns. Eight other Western states—New Mexico, Wyoming, Utah, Arizona, Oregon, Washington, South Dakota and Texas—also have mills which have produced more than 90 million tons of radioactive sand.

The tailings (grey sand that remains after the ore is crushed and the uranium removed) are one of several kinds of radioactive waste left over from our country's quest for more raw material for atomic bombs. Even though uranium is no longer the preferred fuel for nuclear weapons, piles of tailings are growing because private companies are still using



uranium for nuclear-powered reactors. Although it is safe to use the tailing for fill under roads and airport runways, it is not safe to build homes over them because there is no open space for adequate ventilation. When a home is built over the tailings, it duplicates the atmosphere of a uranium mine. The radium in the fill produces radon gas which seeps up through the cellar slab and collects inside the house. The inhabitants of the house breathe radon daughters (highly radioactive particles) into their lungs, increasing their chances for contracting cancer. For years the miners of the West have had a high incidence of lung cancer. Children and infants are especially sensitive to atomic radiation.

For years the Atomic Energy Commission (AEC) did nothing to prevent people from carting away the piles outside the mills and even today there are no regulatory controls over them. At first AEC tried to shed responsibility for the problem altogether by stating the levels of uranium and thorium left in the tailings were below the level that AEC defines as "important" (0.05 per cent). The mills went ahead and discharged the tailings and radioactive waste in nearby waterways. Meanwhile AEC gave lip service to the idea that these materials should be dumped into the rivers at permissible levels, but they did nothing to enforce any safety precautions.

Through a mill-licensing program, the AEC had direct control over all the piles of tailings, and under law could have required mills to take at least temporary safety measures such as covering piles

with topsoil and grassing them over. Again the AEC shirked responsibility, this time in the form of a statement from their legal counsel at the time, Joseph F. Hennessey, who claimed, "The concentration of uranium in these waste piles is [too low] to impose any restrictions."

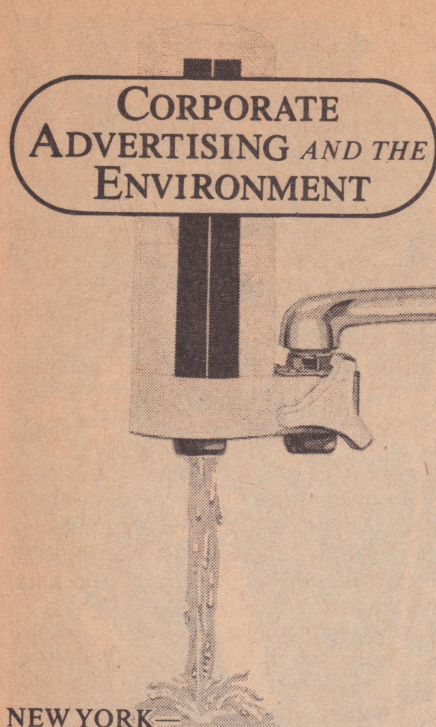
In 1970 the AEC issued a report, "AEC's Responsibility Regarding the Mining and Milling of Uranium," in which it claimed to have notified state health departments about the tailing problem as early as 1961. Not one radiation health officer of the nine states facing the problem has any record of this warning.

Later in the year Coloradans requested federal help to determine the dangers of radioactivity that had been measured in homes in Grand Junction. The US Surgeon General issued only health guidelines for the radioactivity.

As for who wants to pay the multi-million dollar tab for repairing the homes, there are few takers. Colorado State Botany Professor R. L. Dix said, "At present nothing is being done in Grand Junction. They're still squabbling about the level of danger and fighting about who's going to pay to correct the situation. All that's been done so far has been to cover the piles with fill and this is not a wise move, in my opinion, because they used a saline material which makes it difficult to grow plants." Professor Dix mentioned that an engineer is now experimenting with a plastic to cut down on the radon gas that gets trapped in the confined space of a mine or home where there is no free exchange of air. Other hope for change may be in the person of Dr. James R. Schlesinger the chairman who took over the AEC in August. Schlesinger admits "the AEC has fostered and protected the nuclear industry," but he promises in the future the commission would "primarily perform as a referee serving the public interest." The very least AEC can do is clean up its own mess by helping to solve the radio-active waste disposal problem. AEC must seek the necessary legislation to guarantee the piles will be flattened, covered and pushed away from the streams. It must also raise the funds to remove the dangerous radioactive material from building foundations.

Public pressure is needed to see that something is done about this threatening situation and that it is not allowed to happen again in other towns. Write US Representative Wayne N. Aspinall at the Federal Building, 402 Rood Avenue, Grand Junction, Colorado, 81501, and Senator Dominick, Federal Office Building, 1961 Stout Street, Denver, Colorado, 80202.





NEW YORK—

The Council of Economic Priorities (CEP) is stirring up a storm of controversy between corporate advertising and the environment by accusing some of the nation's larger corporations of jumping on the environmental bandwagon with a barrage of false advertising.

In a 40-page report the Council, a privately funded business watchdog group, criticizes statements made in a recent *Reader's Digest* advertising supplement, "Environment '71." CEP reviews these and other ecology-based ads and classifies them as "environmentally irrelevant," "misleading," and sometimes "patently false."

The Council points out that the advertisers capitalize on the environment as a "now" issue while making the same old sales pitch. Meanwhile, the report says, the cost of corporate advertising far exceeds the amount of money industry would have to spend to directly reduce pollution or other environmentally harmful effects.

The \$20.8 billion total spent for all corporate advertising exceeds the \$17.2 billion figure that independent studies predicted would be needed by industry to meet 1971 federal pollution standards.

Through advertising the corporations are able to glorify their interest and supposed effort to save the environment. It is these same companies, however, whose advertising increases power consumption and the demand for consumer goods, or whose products result in air, water and land pollution.

By a close examination of the "fine print" in these trendy environmental ads, the Council found that most were characterized by generalized statements that omit crucial facts; emphasize minimal contributions of an otherwise environmentally irresponsible company; and encourage the consumer to treat a critical problem as solved.

By throwing around stock phrases such as "a total commitment to pollution control" and "multi-million dollar programs," the ads give blanket reassurances of the company's efforts to save the environment. What they fail to do in these ads is put the dollar figures in perspective with other capital expenditures or explain that most pollution control dollars are involuntarily spent only after being legally required.

The ads range from the subtly deceptive to the blatantly false. Some ads treat the environment as a gimmick to sell consumer goods:

- American Tobacco Co., maker of Tareyton cigarettes, offers the smoker a charcoal water filter to use on his kitchen sink for \$5 and two Tareyton wrappers.

- Cott Beverage Co.'s radio commercials tell the listener that he can help solve the water pollution problem by drinking its bottled Cott Spring Water.

- Publix Shirt Co., maker of Career Club Shirts, suggests to consumers: "Improve the Environment. Wear Our Shirts."

The body copy of ads contain misleading often false information:

- An ad by the Armco Steel Corporation brags about the company's pollution abatement while Armco is the defendant in five air and water pollution suits, one by the Federal government.

- A Texaco ad claims, "Texaco prohibits the discharge of oil into the sea anywhere in the world" while last April Texaco's Anacortes, Washington, refinery spilled 200,000 gallons of diesel oil into the Puget Sound.

- The widely criticized Potlatch Forest Inc. ad which attempted to show Pot-

latch's commitment to discontinue water pollution from its Lewiston, Idaho pulp mill stated, "It costs us a bundle but the Clearwater River still runs clear." It turned out that the photograph used was taken many miles upstream of the pulp mill; mill wastes were not being discharged into the Clearwater at all, but to the Snake River three miles away.

- Southern California Edison Company ran an ad depicting a contented resident of their power-plant's wastewater, a lobster who it seems came "from nowhere near the plant."

- A Standard Oil of California ad represented the Palm Springs courthouse as a company research center where Chevron supposedly waged war against auto smog. (Remember the F-310 exhaust-filled-balloon ad? That was the Palm Springs courthouse in the background.)

The CEP report also takes issue with environmental advertising that relates to real anti-pollution activities by questioning whether the scale of the effort matches the scale of the ad campaign.

- The Can People, an industry group made up of the big four tin can makers, constantly plug their "recycling centers," which are nothing more than "big disposal barrels on plant property." The companies say they're getting about 50 tons of cans back a week, or one million cans, just a fraction of 1 per cent of 1.25 billion cans disposed of every week.

- The Ford Co. stated Ford would "continue to develop engines which will further reduce carbon monoxide and hydrocarbon emissions below the 70 per cent to 80 per cent reduction to date." The Council cited a government study that said that such low emission levels were generally achieved only in a small number of prototype automobiles.

While criticism from environmentalists, businessmen and communications executives has led some companies to drop environmental pitches, most spokesmen charged with "false" ads acknowledge technical inaccuracies, but counter by saying it does not "impugn the validity of the advertising messages." A spokesman for Southern California Edison said the lobster depicted in an ad the report cited as false was "identical in size, specie and apparent satisfaction" with lobsters dwelling in large numbers near one of its power plant's coolingwater discharge points.

Even with the controversy now exposed and the criticism flowing heavy, corporate advertising of the environment still crops up everywhere to pollute our minds. If only the billions the corporations spend to bolster their images would go for pollution control equipment, research or development, it might not all be so offensive.



ECO-TACTICS!



Robert Altman

This is the second in a continuing series providing tactics for concrete citizen action in defense of the environment. If you (or your group) have carried off actions which have effectively dealt with your local environmental problems (or have ideas in mind that might work), share these eco-tactics with us (c/o Gil Jordan, Clear Creek, 1 So. Park, San Francisco, Ca. 94107) so we can pass the best on to the rest of our readers.

Meanwhile, here's some more eco-tactics for your consideration—taken mostly from the new Environmental Action Book, ECOTAGE, edited and ©1972 by Sam Love and David Obst, reprinted by permission of Pocket Books, a division of Simon & Schuster, Inc.

Remember — eco-tactics are designed for action; pick a tactic you can get behind and try it out!

GET 'EM WHERE THEY LIVE

Every polluter lives someplace, right? Find out where. If you've got several in

your town, make a list of their homes, and be sure you're right. Then get a map and plot a route. Get some friends and give a tour—the more people and cars the merrier.

Leak it to some sympathetic press reporters that you heard there may be some kind of "demonstration" Saturday afternoon around 2 p.m. at the houses of the people on your tour list.

Get a megaphone (or better, a battery powered bullhorn) and give a prearranged tourist spiel as you drive by or park out front some Saturday afternoon. For example:

"On your right, ladies and gentlemen, in that magnificent white frame house, lives Joe Polluter, President of Crass Industries. Crass Industries is the multi-million dollar chemical firm that has beautified this community by pouring approximately 15 million tons of water-borne pollutants annually into the Pristine River. The pollutants include sulfuric acid and mercury among others.

"This inspired effort has succeeded in

killing every living thing in the Pristine River for a twenty mile stretch and has made all water sports unsafe for fifty miles downstream. When asked if it would be possible for Crass Industries to install pollution control equipment, Joe Polluter showed his great concern for the community by offering to close down the plant and fire 600 employees."

Then you could read similar statements at other polluters' homes throughout your area. Just be sure you have all the facts. There's nothing more devastating than the truth.

—"Barracuda"
Miami, Florida

PLANT POWER

"The Greening of America," our style: Plant Kudzu Vine seeds (*Pueraria hirsuta*) around junk car lots and other roadside eyesores. Kudzu Vine will grow 25 feet high in one season, and it reseeds itself. It is illegal to cultivate in some states. A handful of seeds would obliterate most junk yards.

—Jack and Annie
Rosman, North Carolina

BILLBOARDS AND BEAVERS

We the beavers of the Kaskaskia River Valley are being driven out of our homes by the Army Corps of Engineers' \$98 million barge canal to subsidize Peabody Coal. One of our human canoeist friends fortunately has taken photographs of our homes being destroyed. Some of our other friends are writing down the locations of Peabody Coal Operation Green Earth billboards (describing the destruction of our habitat as "progress") on major Illinois highways.

The nine largest newspapers in Illinois will receive large prints of the devastation of our homes. About the time they open their mail and look at the prints, nine Operation Green Earth billboards will be gnawed down with the precision of nine axemen. Until then we reside on Ninemile Creek, one of the small side streams that is surviving Operation Green Earth. It is crowded and we are hungry.

—The Beavers of Kaskaskia River Valley
Carbondale, Illinois

CONSTRUCTION DESTRUCTION

Shopping centers (and gross construction projects of all kinds) are going up everywhere—they're so obscene—but what can you do?

Try getting on a construction job and doing as much as possible to foul up the work in progress. I know of one case where a worker went around putting wet cement, rags, rocks, and other assorted goodies down the water pipes, in hopes of causing problems when the store's water system was eventually turned on, which was to be some three months later.

The pipes were already laid, and were in the process of being hooked up to sinks, toilets, etc. The ecotage was completely unobservable and would not be noticed until the system was turned on. Word has it that this particular store had some terrible problems with their plumbing—I know for a fact that the original projection of three months to opening has turned into nine months and still no opening.

Of course it would be too much to say the delayed opening is completely due to this *particular* piece of work. I'm sure that the pebbles, sand and epoxy that were put in those massive air-conditioning units had something to do with it, along with the destruction of important tags, labels, and operating instructions whenever the opportunity presented itself.

—M.N.
Baltimore, Maryland

XEROX ROCKS OUT

An unusual non-profit Chicago corporation called Businessmen for the Public Interest (BPI) has a "Lake Michigan Project" in which it has turned loose a covey of graduate students to do research on lake discharges and control techniques. Among other things, they have taken a portable Xerox machine into state and federal agencies and made copies of everything in sight, not without ruffling quite a few bureaucratic feathers.

The result will be a report of from 40 to 80 pages on each of the 250 major polluters of Lake Michigan. Each report will contain "a history of the company's past pollution, its present discharge, an analysis of the probable effects of the discharge on the biota of Lake Michigan, the health implications of any toxic substances contained in the discharge, and *specific recommendations* as to technology available to recycle or reduce the discharge."

These reports may be used for any number of effective purposes: to contest the issuance of individual discharge permits; to notify and inform local, state and federal officials; to embarrass the guilty polluters by releasing the reports to the local press; and on and on.

—Conservation Foundation Newsletter

AD ATTACK

Another BPI (see above) tactic was demonstrated on the occasion of Chicago's 32nd annual "Clean Air Week." BPI ran a large newspaper ad headlined, "Happy Cleaner Air Week to Mayor Daley and His Friends." It pointed out that members of the Air Pollution Control Appeal Board either had conflicts of interest or few qualifications beyond their personal friendship with Daley.

The ad was reprinted in other papers all over the country. "There was so much fallout, it embarrassed the hell out of the mayor," said a BPI spokesman. Daley turned around and made a series of new and better appointments to the board.

—Conservation Foundation Newsletter

CHILDREN'S CRUSADE

The following campaign is aimed at embarrassing corporations and adults to take some positive action in defense of the environment. The strategy is to institute a class project where elementary school children write letters to local or state polluters asking them to stop spoiling the land (air, water, etc.).

Contact the local television station and ask them to cover the story. Point out the great human interest and current issue news value of the children's project.

Get the local newspaper to print the children's letters. If possible, have the letters appear in the students' own handwriting on the same day as the television coverage. Obviously you should follow up by actually sending the letters to the offending polluters.

—J.R.
Bronx, N.Y.

METER MEDDLE

Help stamp out the parking meter eyesore. It just costs a penny and a little liquid metal. Put the liquid metal on the penny, and put the penny in the meter. To put it in a once-popular vernacular, it's real solid man!

—"The Wolf"
Bundee, Michigan

POLLUTION THERMOMETER

It's human nature for individuals and groups to crave recognition, and it's good public relations to be listed among contributors to the solution rather than the problem. A positive approach which dramatizes the problem and publicizes those who take steps to alleviate it might have merit.

On that premise here's a proposal to stop pollution and exploitation of our environment: a giant poster of a thermometer to be hung prominently (City Hall, Court House, downtown shopping mall, etc.). Each time a major action that you can definitely substantiate is taken by any group, business or industry to reduce their critical polluting or exploiting of the environment, the name of the firm, industry or group would be listed with the date, and the thermometer reading would go down a degree. (Depending on how many critical problems your area has, you'd better start with a high temperature—say, 150 or 200 degrees.)

The local paper could run a reproduction of the thermometer each time something noteworthy is accomplished toward a "cure." An accompanying news item could describe the measure taken. Naturally the news media would continue its coverage of the exploiters and polluters. The offenders might make an effort to spend a little more money and apply remedies if some special recognition were prominently displayed. Each time a firm took another step they would be listed again.

I can envision all sorts of possible gimmicks to dramatize this—"prescriptions," "get-well cards," etc., sent to major offenders (with copies to the press). Of course somebody has to administer anything like this, take responsibility for the "readings," substantiate the actions taken, etc., so it will take a little effort—but I think it would be worth it.

—D.V.M.
Omaha, Nebraska

Armed with maggots, wasps, and chicken shit,
this man and his corporation are

Sod-Busting the Petrochemical Junkies



Photos by Hank Lebo

by Hank Lebo

In his small office next to the red, white and blue All-American hamburger stand in screaming west Los Angeles, Albert Lerch, 31, architect, chemist, urban planner, and president of World Ecology Corporation, hurriedly scans some soil analysis reports.

"Hmmm... Imperial Valley reports," mutters Lerch, wealthy young eco-freak and renegade from a family of American chemical barons, the Stauffers. "The Imperial Valley used to be one of the richest farming areas in the world, but since 1922, fifty thousand farmed-out acres there have been retired. Here—read about it..." he says without looking up, thrusting a pile of yellowed L. A. Times clippings toward me. "we can bring those fifty thousand acres back into production with our biological soil management and pest control programs."

Al Lerch has big plans. A life-long lover of nature, Lerch is especially fascinated with the intricacies and capabilities of the inhabitants of the micro-biosphere. He can talk for hours about the life cycle of fecal bacteria. He wants to revolutionize the shape, content, and motivations of American agribusiness. He has put together an integrated program of organic farm management which allows farmers to get bigger crop yields of organic produce for a fraction of what they now spend on chemical fertilizers and pesticides.

Two years ago Lerch all but gave up his architectural practice to revitalize the fledgling World Ecology Corporation, which manufactured a fertilizer from chicken manure. The operators of the company plant were polluting the southern California countryside with manure dust and pollution citations forced them to cut back their production. The multi-talented Mr. Lerch redesigned the entire plant and engineered non-polluting methods of working the chickenshit miracle.

WEC is using revolutionary technology to combat ecological problems involving waste disposal, waste reclamation, and organic agriculture. At the root of it lies the philosophy that agrarian man must live *with* the land not *off* it.

Under the wing of WEC, Al Lerch wants to set up a world-wide organization to grow and distribute organically grown produce. He has begun by starting southern California farmers on his crop management program. It not only costs the farmers less, but Lerch can guarantee to sell everything they can grow for top prices because of the demand for organic produce. He has also developed new methods of handling the produce with mobile freezing plants.

"You only see organic produce in natural food stores," says Lerch, "and it's usually atrophied or blemished. But the stores all claim proudly that it's organic and thus, presumably, the blemishes don't matter. I think that's ridiculous; I don't like to eat fruit that has been grown in poison, but I don't like wormy fruit either."

Mark Casady, WEC's muddy-booted sales director, is

at odds with the well-meaning organic farmers who grow such produce.

"They seem to take this mystical approach to it," he explains, "and many believe that organic farming means just not using chemicals and poisons and letting God take care of the garden. They seem to be more involved in the ritual of the thing than in the science of what organic farming is all about."

"The only way you can do something in a large way, is by having Government do it, or by having business do it," says Lerch, "you just can't have a little underground movement because you're dealing with technical information." Ruling out government as stifling, Lerch has entered the realm of big business and he doesn't see any philosophical inconsistencies in doing so.

"It's a matter of what you do with the profits, versus whether you're trying to make a profit," he declares.

"It is my objective to use the major part of the profits toward solving ecological problems, not for things like advertising."

SULPHURIC SHOWERS BACTERIA REVELATIONS

The development of WEC's technology began twenty-odd years ago with the work of Carroll Stay, an eccentric Mormon farmer. Stay was a health nut and an organic food enthusiast way back in the forties, and, as a practicing farmer, he saw a need for an alternative to chemical farming.

"When chemical fertilizers first became available," the 67-year old Doctor of Agronomy recalls, "the whole world was ready to accept it. Chemical outfits like Standard and Shell had all these oil-industry by-products and they figured that farmers were a bunch of know-nothing dumb clucks. They packaged these wastes and sold 'em to the farmers as plant food. But now we find that it's depleting our soils from coast to coast."

We stood in a field of mustard greens in Watts, California, where WEC is helping the Watts Labor Community Action Committee grow organic produce on what was recently unused land surrounding electric power towers. Carroll Stay pulled up a bunch of greens and carefully fingered the black dirt clinging to the part.

"The soil is our lifeline," he said, "and unless we get food back into the soil, in the way of humus, and stop using strong chemicals and pesticides, we're soon going to be out of business."

During the fifties, Carroll Stay had a plant in Los Angeles where he and a partner manufactured a fertilizer called Liquid Grow. There Stay worked to find a way of speeding up the composting process. He wanted to synthesize the rapid breakdown of proteins to a humus-like state.

Available technology afforded him several methods of accomplishing this through combinations of heat, pressure, acids, or bases. But most of the methods gave off noxious wastes when he used them on his protein

mixture of hoof, horn, and hair. Then he tried cooking turkey feathers in sulfuric acid, but his smokestack exploded, showering his neighbor's building with the deadly brew. In 1959, the L.A. Air Pollution Control Board ordered Stay to shut down the whole operation.

Then in his fifty-seventh year, Carroll Stay had a mystical experience. A great idea came hurtling out of the heavens and hit him like the hammer of Thor.

"In a manner of prayer it come to me that I should let the biologicals work for me, instead of the chemicals. It hit me right between the eyes, the idea to let the bacteria do the break-down of those turkey feathers. Every night for about three weeks it would come to me how to go about this. I'd get up at two in the morning and write down all these ideas . . . It was a revelation."

What Carroll Stay discovered was a way of isolating and "mass-producing" a powerful combination of cultures which, along with their by-product enzymes, could rapidly break down vast amounts of proteinous matter into rich humus. He named the culture Bio-N, and today it, and other related potions, are marketed by WEC.

CHICKEN SHIT SUPPLEMENT

WEC offers the farmer a complete program of organic soil management and biological pest control in conjunction with the materials it sells. The program begins with lab analysis of a farmer's soil to determine its existing components and their proportions. The soil's trace mineral content and pH are evaluated. Plants grown in the soil are also analyzed.

Then Bio-N soil supplement, a humus mixture made from specially composted, high-grade chicken manure (without harmful chemical residues) and containing free proteins and fully chelated (liberated) trace minerals, is compounded to specifications necessary to correct the soil deficiencies. Next the Bio-N soil activator is applied in the irrigation water at a specified gallonage per acre. To the untrained eye, Bio-N soil activator looks suspiciously like common dirt, as does the soil supplement. But it contains beneficial bacteria including azobacter (nitrogen-fixing organisms), actinomycetes, and other important spores and fungi. These microorganisms comprise about five per cent of the weight of the activator and are dormant until the stuff is mixed with water. Over 80 percent of the dry activator is protein, which serves as both a bacterial nutrient when mixed with water and a plant nutrient when mixed with the soil.

HOT MAGGOTS

The third phase of the program is biological pest control. WEC works with Rincon-Vitova Insectaries to provide the farmer with colonies of selective predators and parasites.

Al Lerch took me on a tour of the insectaries which are located in a dozen converted railroad cars near Rialto, California. There entomologist E. J. "Deke" Detrick and ten employees raise about twenty-five mil-



lion insects a day, creating and maintaining entire insect life cycles and ecosystems.

We stepped from the light of a clear December day into a warm, humid, dimly lit boxcar, thick with an overwhelming stench of rotten skim milk (a fly's staff of life) and filled with the furious dynamo buzzing of one million flies in their screened penitentiaries.

The insectaries operate a fly control program for farmers whose henhouses, dairy barns, manure piles, or feed lots are swarming with disease-carrying flies. Detrick releases thousands of tiny, harmless wasps at the scene of infestation. The wasps act as parasites, laying their eggs in the fly pupae. This kills the unformed fly and increases the wasp population. The cycle continues until there are so few flies left that most of the parasites fade away from lack of a place to procreate.

The insectaries must always have lots of these creatures on hand. To do this, they have to provide maggot cocoons so the parent parasites can lay their eggs.

Since the maggots hatch from fly eggs, the insectaries must breed about a million flies a day in order to raise fly parasites. And those flies have to eat. So do the millions upon millions of maggots, and each generation must be raised in carefully controlled environments.

"This has got to be the most complicated business in the world," said Lerch as he leaned over a long tray of maggots. He reached down and scooped up a double handful of the little bastards and stared intently into his hands as he spoke. "You've got the predator living on the pest, but then you have to have something for the pest to live on. Sometimes it's simple... Detrick feeds his Maggots bran and old cottage cheese mixed with sawdust and a little water."

"But with scale (a pest which attaches itself to the skin of fruits and vegetables in order to lay its eggs) it's not so easy. Scale is susceptible to another kind of parasitic wasp but you don't find large enough infestations of scale in, say, an orange grove, to raise the quantity of parasites that Detrick needs. Banana squash is a large vegetable, plenty of surface area and it's perfect for growing lots of scale; so Detrick has developed a special hybrid banana squash...the scale really love to breed in it."

Lerch glanced up for a moment, then returned his attention to the maggots squirming in his hands. "Mmmmmmm...there's nothing that feels quite like this...uh—anyway, it takes about 45 days to raise a good crop of scale on the banana squash," he continued, "and there may be only one or two days during that time when the lady scale is laying her eggs. So you have to bring the wasps in during that period so they can parasitize the scale eggs. Then, when the wasps hatch, they can live only two or three days in these artificial conditions. This represents a considerable problem as far as shelf-life of the product is concerned. During that time they have to be collected, packaged, and shipped off to the fields where they will parasitize the scale on the farmer's crop."

INSECT WARFARE, OVERDOSES AND BURNS

It is important to understand the philosophy behind

Banana squash has plenty of surface area and is perfect for breeding scale, a pest which attaches itself to the skin of fruits and vegetables; the scale is then used to nourish

biological pest control; biological control does not mean the eradication of pest populations. Deke Detrick believes in insect management; maintaining a balance of insects, both good and bad, which keeps pests from expanding to dangerous levels.

"It is only the *intolerable* numbers of surplus individuals causing *intolerable* damage to plants that are truly pests!" Detrick explained, "The balance between the good bugs and the bad bugs is never static and is never equally distributed in a given field. It must be monitored and studied at regular intervals. Then, when a reasonable balance is established, the insects take over the job of regulating their own population."

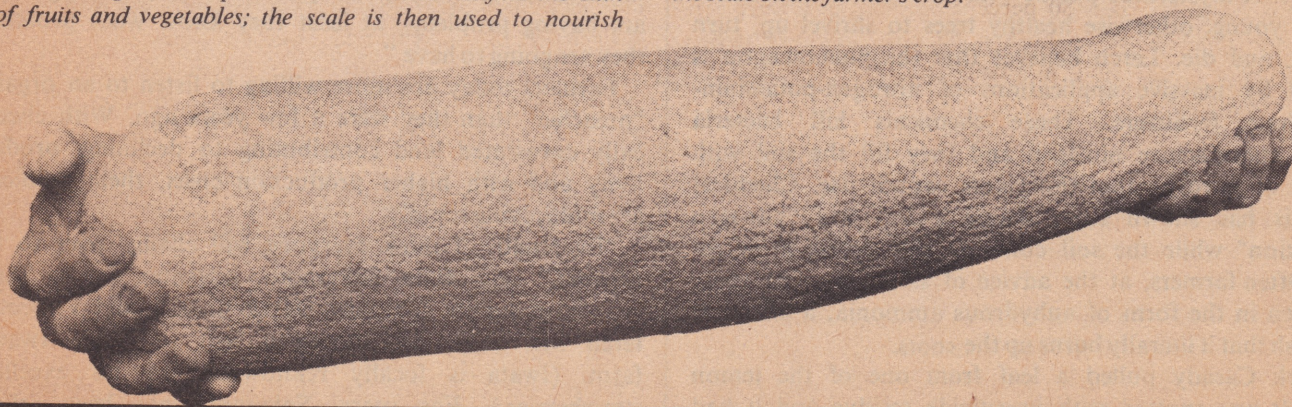
At best, Detrick's program can produce higher crop yields than pesticides can for ten percent of the cost of chemical programs. At worst, the results of his biological methods can equal those of the chemical warfare programs for about half the cost and with no harmful side effects such as poisoned farm workers, wildlife or consumers.

WEC has tested crops of citrus fruit, avocados, strawberries, carrots, potatoes, grapes, and sugar beets which have been grown under biological management programs for the last several years. The tests show that WEC's methods can grow any of the crops with equal or less insect damage than chemical program. Crops grown under biological programs also show higher nutrient percentages and are better looking than crops grown with pesticides and chemical fertilizers.

Al Lerch stresses, however, that this does not happen overnight. The results depend upon what the farmer starts with in the first place. If his land is healthy and he nurtures his crops with biological methods from the very beginning, he can achieve better results sooner than the farmer whose twenty-year-old apple trees are "burning up" from overdoses of chemical nitrogen.

Biological management programs cost less than chemicals. The predator-parasite approach to pest control is cheaper, more effective, and eliminates the need for such mega-poisons as parathion and the often ineffectual DDT. In a similar fashion, the Bio-N additives can eliminate the need for chemical fertilizers.

wasps, which are in turn released in the field to parasitize the scale on the farmer's crop.



The tremendous productivity brought about by mechanization and chemical fertilizers made America the greatest agricultural nation in the world, but it is beginning to falter. Thousands of acres of precious farmland, saturated for so many years with profit-yielding chemicals, are burning out. Once again, America is learning that nothing is free.

"Modern agricultural is in serious trouble," Mark Casady explained as he and Lerch showed me a "chemical" citrus grove near Claremont, California. "Chemistry has a death-grip on modern agronomy. In the agricultural schools, the science that is stressed is chemistry. In the private soil laboratories you find chemists. Very seldom do you find people with a biological understanding. In addition, the big money in agriculture today, besides the harvest of the crop, is in the packaging, processing, and fertilizer operations. We often find that crops and even whole farms are financed by the fertilizer and pesticide people.

"And in the farm journals, the biggest advertizers are the equipment manufacturers and the petrochemical industry," continued Casady, an ex-farmer himself. In the universities, again, the same people and corporations are funding agricultural research grants. We don't have figures on how much is involved, but we know that it's *the* money in the field.

"The young people in the universities majoring in agronomy or related fields are looking toward careers with the big farming corporations or private research institutions which are tied in with the petrochemical industry and the chemical misunderstanding of agriculture.

"The young entomologists tend to stay on the chemical side because that's where they are going to find jobs—as entomologists with big chemical companies who provide entomology service to customers for "free". In the insecticide business, it's the entomologist who is the salesman," Casady said.

The lemon grove we were walking through appeared to be on its last legs. Albert Lerch pointed out that citrus trees should last up to 75 years, but that in southern California farmers were lucky if their trees lasted twenty. A mysterious plague—farmers call it "firebite"—causes young, otherwise healthy trees to shrivel up, turn brown, and die. Lerch believes that the phenomenon is caused by massive applications of nitrogen-potassium-phosphate fertilizers. These chemicals kill bacteria which manufacture nitrogen and they fill the soil with a type of nitrogen that the plants cannot use. Chemical analysis has shown cases where a leaf has "nitrogen starvation" while the soil contains high levels of nitrogen. Often farmers, at the advice of salesmen, will apply nitrogen in the form of anhydrous ammonia, a chemical so harsh that it literally burns up the roots.

Mark Casady pulled a leaf from one of the lemon trees. It was spotted with insecticide residue and it had

no lemon oil smell. "This is what's called clean farming," Casady said, kicking the hard, dry ground, of the grove which bore a close resemblance to an empty drive-in movie lot. "You spray the entire grove with a broad spectrum insecticide which wipes out *all* insect life. You spray the ground with herbicides to eliminate weeds and then you drive your tractor through and rake up all the dead leaves and weeds. These farmers believe that the only good bug is a dead bug. They don't realize that by leaving a carpet of leaves on the ground they are providing a habitat for beneficial fungus, bacteria, and insects."

PETROCHEMICAL JUNKIES

Casady likened the plight of the chemical farmer to that of a heroin addict. The more he sprays, the more he has to spray. He kills the natural predators and parasites and, as the years go by, his pests grow more and more resistant to the poisons. It's not uncommon to find a farmer who spends ten times as much on pesticides as he does on chemical fertilizers. "These poor guys have one hell of an expensive monkey on their backs," said Casady, "and what's *really* insane is that these pesticide salesmen are on commission! It's the petrochemical industry that's farming the farmer."

Robert van den Bosch, chairman of the Biological Control division of the Department of Entomology at U.C. Berkeley estimates that California farmers spend \$300 million on pesticides annually. And California uses roughly a third of all pesticides in the United States.

"Naturally there are a lot of people who are very unhappy about our proposals of sophisticated programs which are less dependent upon insecticides. You have a \$10 million a year insecticide market in cotton alone. Our programs of integrated biological control can cut that by two thirds, but that lost \$7 million promotes a vicious reaction," Dr. van den Bosch told a recent Entomologist's convention in Los Angeles. "We know that in California's major crops; cotton, walnuts, citrus, alfalfa, and grapes, we can reduce the amount of pesticides now used by 50 per cent or more."

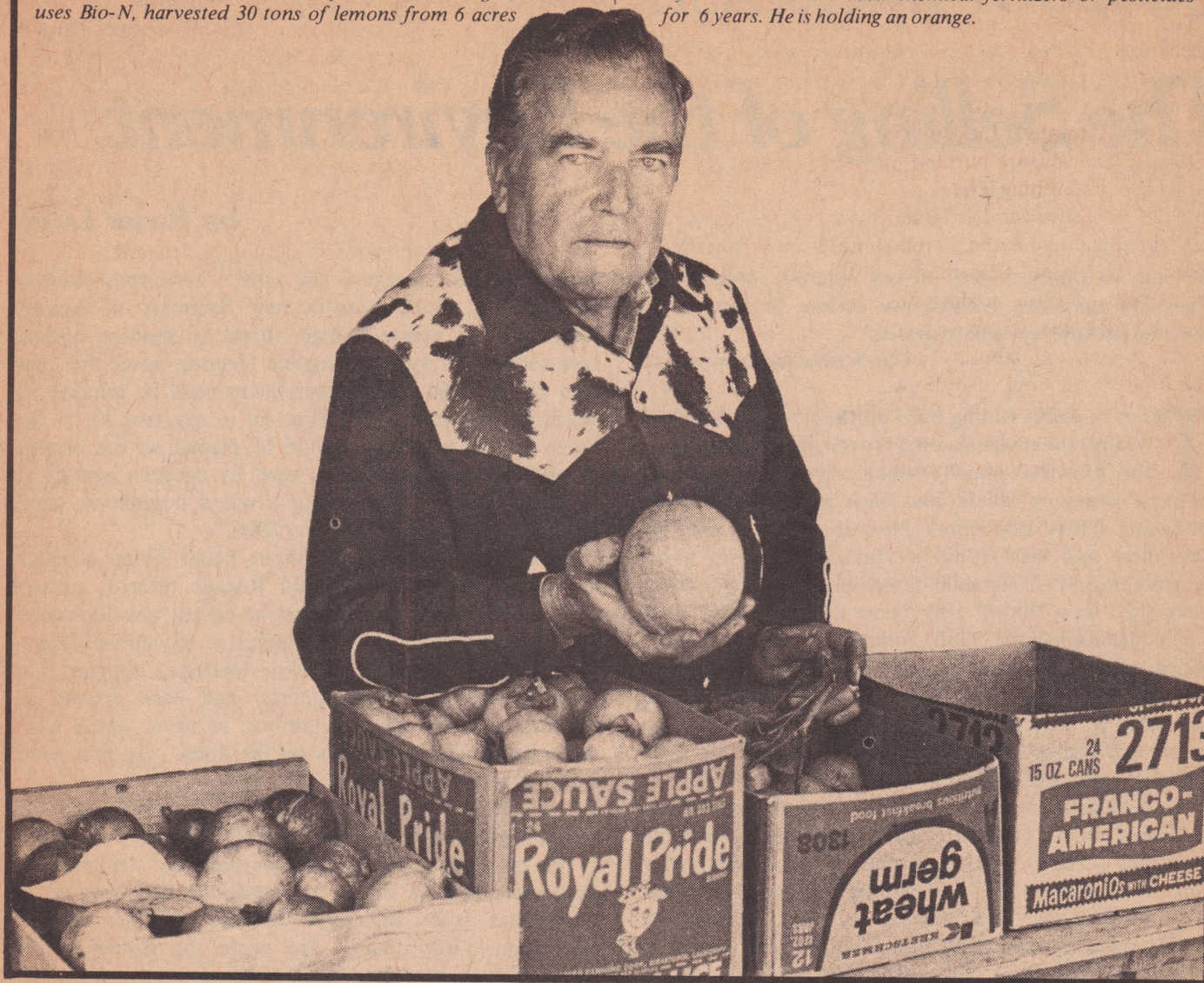
Casady believes that farmers are beginning to wake up. "But farmers," he added, "like anyone else, have a resistance to doing things a new way. They get comfortable in certain habits and processes and, although they are having problems, at least they know what problems they are going to have."

Farmers today are more willing to listen to an organic "preacher" than they were a few years ago. With chemically devastated land contributing to declining productivity and with higher production costs, their problems are multiplying rapidly.

"Eventually, I think everyone will change over to the organic," said John Sakamoto, salesman for a Santa Ana farm supply company. Mark Casady and I encountered Mr. Sakamoto during a visit to Norio Iwata's farm. (Iwata is locally reknowned for his excellent strawberries.) For years, Sakamoto has been selling

Erik Franzen of Fallbrook, California, a citrus grower who uses Bio-N, harvested 30 tons of lemons from 6 acres

last year. He has not used chemical fertilizers or pesticides for 6 years. He is holding an orange.



chemical fertilizers and pesticides to local farmers but he said things are changing now.

"The public is getting concerned over the chemicals," he told us much to our surprise, "because they know that these things wind up in their food. Farmers really haven't had much education about fertilizers, except from chemical companies, and the chemicals have ruined much of California's farmland. Good land is getting scarce and farmers are now finding they have nowhere else to turn but to organic approaches."

"We are selling more organic stuff these days," Sakamoto added. "Sixty per cent of our volume is in bloodmeal, bonemeal, and chicken manure."

In addition to consumer pressure and the high cost of chemicals, there is another reason why farmers are beginning to spurn petrochemical farming. Many of the preparations farmers are urged to plow into their fields are mere cosmetics. These chemicals make it possible to grow larger produce in a shorter time by causing the plant to take up more water. Whatever gain is to be

had by such practices is lost when the bloated produce is taken to market. It bruises more easily than organically grown produce and has a much shorter shelf life.

HEAVY HOEING ON THE STATUS QUO FARM

Al Lerch is keenly aware that World Ecology Corporation has a long row to hoe before American farmers turn their backs on the petrochemical industry. Small farmers, operating on dwindling margins, can't afford mistakes, and they are cautious about trying new methods. As American farms have grown in area and declined in number, farming techniques and farm management have become a matter of corporate policy, and agribusinessmen regard new ideas with a jaundiced eye.

Though World Ecology's programs may well be the only comprehensive, well-developed, and commercially viable alternative to chemical warfare on the farm, it looks like their greatest challenge will be a war of information with the protectors of the status quo.



ECOLOGY BACKLASH:

The Selling of the Environment

by Roger Lubin

"We are in business out of self interest, because we believe in ourselves, because we believe in free enterprise, and because we want to profit."

The Whittaker Corporation

They're back! Riding hard on the tide of a backlash against the environmental movement are the oil boys the "growth-is-good" cowboy land developers urban planners, pentagon chiefs, and back room, ward heeler politicians. Earth day didn't plow them under and recycle them and neither did a year of platitudes about the emerging environmental consciousness. They're back—like the "New Nixon" they come draped in the cloak of ecological apple pie, God, country and motherhood—talking about responsibility to the environment while their maniacal blood lust drives them forward, lunging and lurching after every opportunity to develop, plunder, pillage and spoil in the name of progress, the GNP and now...yes, ECOLOGY.

The backlash is here. It's coming down from all sides, as though all at once they (the impersonal, insidious, ubiquitous THEY—with a capital "T") realized something was happening...something powerful...something threatening, and reacted as they always do. Girding up their mammoth bulk, they lunged forward to discredit, to browbeat, to peddle influence and collect all those old debts from a thousand old, indebted cronies. Like fish out of water they flailed about, gasping for a lifestyle threatened by a new awareness. They reacted with all the instincts of an old ringwise club-fighter, and knowing that all chances were lost save one, they lunged forward to do or to die.

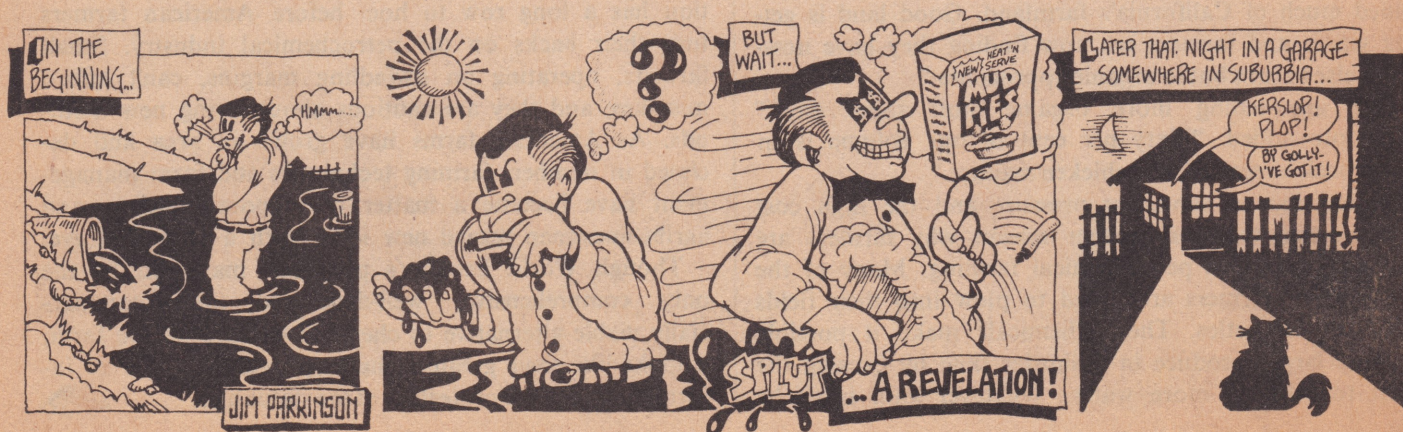
It doesn't matter where you turn. The voices are dif-

ferent but the message is the same. "Environmentalists," said Earl C. Butz, Nixon's new Secretary of Agriculture, "are the greatest single threat to modern agriculture today. A return to organic farming poses the question of which 60 million Americans shall be selected for death by starvation." He went on to say that he "...believes greater emphasis should be placed on the benefits of pesticides and herbicides used by modern agriculture in the production of food for a world population which is expected to double by the year 2000."

While Butz was talking about better living through chemistry, California's Ronald Reagan offered support to the oil industry against what he called "the doomsday crowd." Speaking to oil executives at the annual meeting of the American Petroleum Institute, Reagan said that "If they (environmentalists) had been around in the time of Christopher Columbus, he never would have made it through the pickets on the dock." He was given a standing ovation.

U.S. Surgeon General, Jesse L. Steinfeld, testifying at a congressional hearing, recently advised housewives to use phosphate detergents—contradicting the previous government policy which recommended the removal of phosphates from detergents because of their adverse effects on water quality. He made the statement, he said, because he feared that large detergent manufacturers would shift to more caustic substitutes, and "I hoped to forestall that by telling the house wives that phosphates are a safe product." House conservation subcommittee chairman Henry S. Reuss (Dem-Wis) declared that in reversing its policy the government had "adopted the phosphate detergent industry's line."

Land developers, too, have had their say. Roger Lap-



"Some of the hysteria about ecology has died down."

—Fortune Magazine, November 1971

ham of the San Francisco North Waterfront Associates warned, "If San Franciscans don't want their city converted into Manhattan, then let 'em go someplace else. But don't complain about it, because that's what is going to happen, and nobody can stop it."

If that was a little blunt, perhaps you can find solace in the words of Carol Canfield, curator of the Sandia Atomic Museum in Albuquerque. "Nuclear bombs are nothing to fear," she said calmly. "They are just another weapon in the arsenal. A hundred years from now, people will look upon them as mere bows and arrows."

"There is a systematic effort going on to degrade the environmenatlists," according to Dr. John Gofman, former Associate Director of the Lawrence Radiation

Laboratory at the University of California and author of *Posioned Power — The Case Against Nuclear Power Plants*. "It is intensifying, and can be expected to intensify even further. When AEC Chairman Schlesinger said, 'We environmentalists will suffer if there are brownouts and blackouts as a result of our efforts,' he was extending an open invitation for the power industry to use the blackout scare as ecological blackmail."

What happened? Didn't we all get together and litter the streets in the name of ecology on Earth Day nearly two years ago? Didn't business, industry and government, Republicans and Democrats, long hairs and short-hairs, concerned senior citizens and housewives agree, yes, agree, that the environment was the one issue that they could all get behind? Wasn't ecology the one political bed that could hold Bella Abzug, George Wallace and Shirley Chisholm—all at the same time? And even now, in the age of the backlash, no one has actually said

that they stand hard and firm against the environment. No one's come right out in favor of pollution, desecration and smog. Where is yesterday's glimmer of hope, and why can I only recycle my bottles on the third Tuesday of the month from noon 'till 4 pm?

It's the American apple pie syndrome, and it happened again just like it happened before. We absorb what might change us and we spit it back in platitudes, tokens and veneer.

In California, a magazine called *Quality Living* offers consumer coupons that are similar to cash discount coupons with one exception. Instead of receiving ten cents off on the purchase price, these coupons each represent a ten cent donation by industry to the Quality of Life Fund—administered by the prestigious San Francisco Foundation on behalf of the environment. When you have your next Excedrin headache, it may be comforting to know that, because you reached for their product, the Bristol-Myers people will donate a dime to the Quality of Life Fund. "Ecology" has become just another reason to buy the same old thing.

Two years ago we were naive. We came together because all agreed that the world ought to be a better place to live. "Save the Earth." We wore those words like a shield. "Ecology" was a new word and it was all the rage. Socially prominent young matrons gave ecology teas and collected newspapers and beer cans for recycling. Ecology teach-ins were held on every campus and ragged grade school kids cleaned up roadsides and beaches. It was like a national picnic and Sammy Davis

—Continued



"I can't name a country that isn't heavily involved in the social and economic considerations of foreign countries, the developed as well as the undeveloped."

—Ernest de la Ossa, President
Foremost International

Jr. even mentioned that he was forming "Ecology Records, Inc." When asked why he chose that name he said, "It's a groovy, now word. It's with it!" Big business donned the mantle of environmental concern to the cheers of public relations men, and everyone turned out for the good time. But for most people the good time, at some point or other, started to look surprisingly like a lot of hard work and they all packed up and went home.

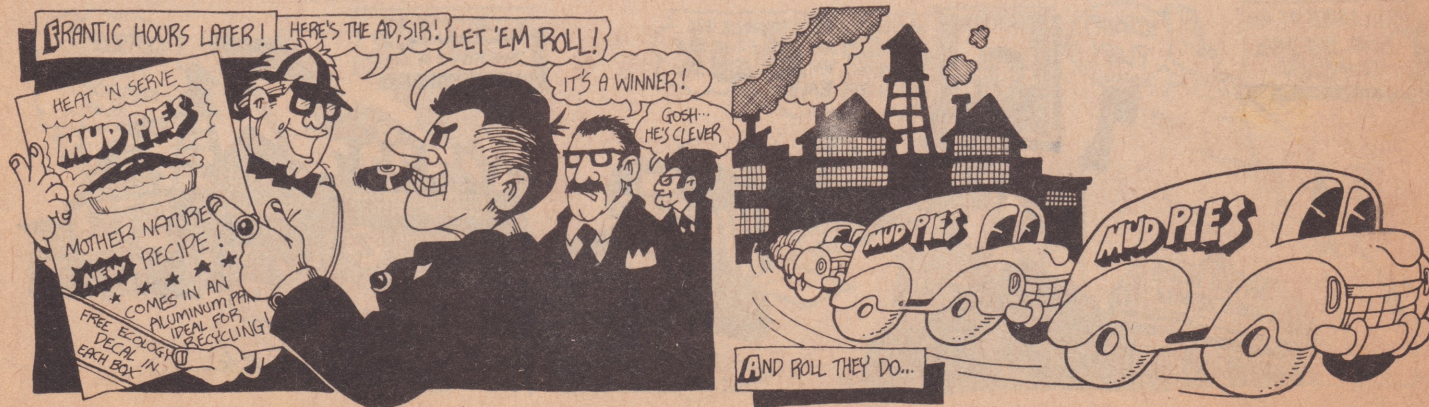
Lucky Breweries was the nation's first brewer to institute a re-cycling plan. They proposed to buy back all the cans and bottles they produced, but they offered a service that is, at best, difficult to utilize. Lucky mustered as much PR and image building as possible over their big-time recycling campaign and such things as "glass-phalt," a paving mixture made of ground no-deposits and tar. Their recycling spurt came to rest in a recycling center located in a hard-to-reach industrial section of San Francisco that is open only on Thursday and Friday from 10 until 2 and on Saturday from 10 until 4.

"There's not enough real interest in recycling," we were told. The initial energy which gave impetus to this movement seems hopelessly mired in the day to day drag of sorting garbage, washing labels off cans and separating the colored glass from the clear.

But all things are not equal to the status quo boys, and that is the wedge that started to drive things apart. The ecology movement gathered so many adherents that by virtue of sheer numbers it constituted a threat and the backlash began. When Mr. Vested Interest saw his interest threatened, he backed to a wall, coiled, and

sprang to attack. He knew that to defend is ultimately to lose. A forestalling operation offered no utility, especially for someone who spend an entire lifetime living on margins and the thin edge. He was used to the risks and the chances and he knew that when there is no out—when you're backed right up against that cold forboding wall—you attack. And they did. The backslashers, that no-nonsense Nixonite group of industrialists, land speculators, oil men, military men, power and energy men, electric men, nuclear men and lumber men—men from that old school we laughed at and called uptight—men to whom "color-me-gray-or-I'll-lose-my-job" was a credo and not a cocktail joke attacked. These men who have a vested interest in the continued expansion of the economy, who live and die by the GNP—they sensed the threat and they acted on it.

"It was like Newton's third law of motion," said Bob Waldrop of Washington, D.C.'s Sierra Club. "From every action there's an equal and opposite reaction. As soon as the environmentalists made some real inroads, there was a mounted resistance. There's a definite feeling in Washington that the environmental movement might 'get out of hand.' They found out that they couldn't co-opt this entire movement and it's been apparent in Nixon's approach. Anything they can co-opt they are all for—like ecology centers providing free recycling for industry—but now they're starting to sense the true conspiracy of the environmental movement, and girding themselves for a major war. When we started to question the concept of the ever expanding GNP, they knew they were in jeopardy.



"They (nuclear power plants) look exciting and are highly desirable from an environmental point of view."

—Shermer L. Sibley, President
Pacific Gas and Electric Company

SHARKS RIPPING AT THE RIM

The November, 1971 issue of *Fortune* contains a 96 page advertising supplement called "California—The Innovator State." It was produced by the California Chamber of Commerce with the blessings of Governor Ronald Reagan, San Francisco Mayor Joe Alioto, Standard Oil, PG&E, Litton Industries, Bank of America, Southern Pacific, Bechtel, Union Oil and almost every oil and power company, bank, land development company, and utility that has a vested interest in the continued over-development of the Golden State. The supplement makes no bones about what it wants; it wants growth. Big growth and big business. You would think California would know better, especially southern California where the air is so noxious as to be nearly unbreathable. But greed is a hard instinct to breed out, and they are lusting. Like hungry sharks they have scented fresh blood and are heading flat out for the kill. No need to bicker among themselves, there's enough out there for all.

The California Chamber of Commerce, like some hideous catering service, has served up the entree: "More people between the ages of 18 and 45, the consuming years, demonstrate a faster acceptance for new products, and man for man outspend residents of all other states for sporting goods, cars, liquor, boats, skis, clothes, records, sundries, books and appliances. More families in California put two or more cars in their garages than in any other state, and more of those cars are high-priced sports cars." But that is only an appetizer.

After all, California is a highly developed area, and a lot of its potential has long since been squandered and spent. The "Innovator State" has one plus, however; which no other site can match. "It's the prime U.S. outlet to the Pacific Rim countries, lushest growth area in the world today. Three-hundred million consumers in thirty-odd free nations from Peru to Malaysia, from New Zealand to Japan form the mushrooming frontier of the future."

The Pacific Rim countries. They languish like fatted calves while we prepare the ritual slaughter. "GNP in these countries is already growing at from 2 to 3 times the U.S. rate. Trade flow around the Rim, now running at some \$100 billion, has doubled in the past five years. If mainland China opens up, it will double again."

California, gross as its excesses always seem to be, is not the only seducer on the scene. New York's Governor Nelson Rockefeller says, "I consider economic growth the indispensable ingredient of all progress. Our system of private enterprise must constantly be encouraged, broadened and strengthened. To this end," he continued, "it is a fundamental objective of this state government to improve the business climate in order to generate more economic growth."

New York State generates more electric power than any state east of the Mississippi, and is a nationwide leader in power plant produced air pollution & thermal water pollution. As a result of industry's demands, New York is at work to increase its generating capacity by 84% by 1980—much of it with nuclear plants.

—Continued



"We are in business out of self interest, because we believe in ourselves, because we believe in free enterprise, and because we want to profit."

—The Whittaker Corporation

SHOWDOWN AT THE BACKLASH CORRAL

There comes a point in the consciousness-caused-by-ecology where you realize that it can't really work—that you can't really effect any change—until and unless you change your life style. Nature demands adherence, and she is a hard mistress. Our worship of expansion and our pattern of resource extraction, of development, of growth at all costs, of endless, mindless, insane consumption must end. We live within a closed system, and the future is already mortgaged to the hilt. If we exhaust our resources there will be no more. They will cease to exist.

Extinction is a terrible and lonely concept. Like some nameless terror dwelling in the deep recesses of our mind, we refuse to deal with it, refuse to see it and refuse to acknowledge its presence. "There is no apocalypse." Even if we do see it, we put it off like we put off going to the dentist. We put it off until it damn well hurts—until we can no longer bear the pain.

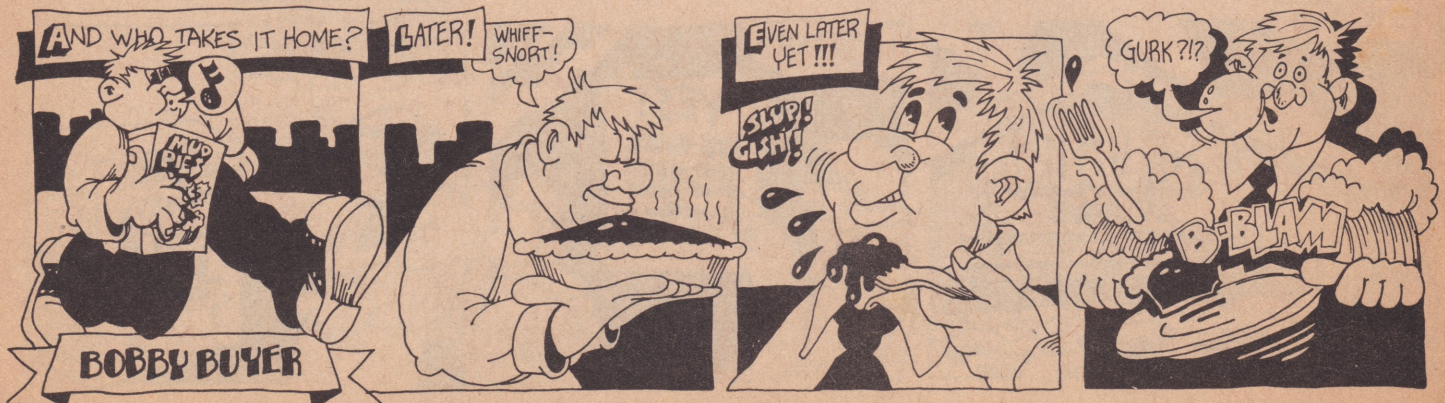
Already, horrible Kafkaesque visions have crossed the horizon and are here, plainly visible, for all to see. While the timber interests lay waste to the forests and the seas and skies are dark with pollution, while the wholesale poison-slaughter of animal life continues throughout the western states, and the re-cycling centers are almost never open anymore, the world's most extravagant amusement park was dedicated on October 25, 1971.

A 1076 piece marching band led by "Music Man" Meredith Wilson surged into the plastic-trimmed streets of Walt Disney World to the applause of television

stars, industrialists, and thousands of bermuda shorts-clad vacationers who made the trek to Orlando, Florida, for the big event. The sun was virtually hidden with the release of 50,000 balloons which hovered over the \$400 million dollar playground like a multi-colored cloud. "For anything man-made," master of ceremonies Bob Hope said, in one of his more vacuous statements, "Ralph Nader would like it."

There are those who think Fantasy Land is no place to raise children, but the road to an alternative seems long and arduous. "When a road is built," Robert Louis Stevenson said in 1894, "it is a strange thing how it collects traffic." There is always a traffic jam on the road to Disney World made up of too many people doing too little with too much, but the environmental movement has finally gotten its own inexpensive, non-Detroit compact on the road. Some of the traffic is finally moving in a different direction. Fraught with growing pains, well intentioned but sophomoric adherents, subject to the onslaught of co-opters, snipers and saboteurs from industry and government alike, the environmental shakers and makers have, nonetheless, created a real threat to the Consumerist power brokers, industrialists and those politicians who are in their debt.

They have responded by organizing the ecology backlash. They fear that their very way of life is under siege. They are right. The environmental issue is no longer a case of trying to shape up the cumbersome structures we live within in order to render them more efficient. It is no longer enough just to recycle that beer can, to use an unleaded gasoline and to compost our garbage.



“...Disney World is better than Nature, anyway.”

—Lemmie Washington

The question is not how to make the system more efficient. We have questioned the very fabric of the system itself; not to tear it down randomly and without reason, but to rebuild it into something that makes better sense. We have reached, at least in terms of expansion, the end of the frontier. The straight line must be replaced by the circle and the struggle, really, is just beginning. It looks like it's shaping up to be one hell of a fight.



BACKLASH IN THE STREETS

We asked the man in the street to comment on the ecology backlash—to give us his views of the problem. We asked people whether they noticed a reaction against the environmental movement, and who they thought was responsible for it.

LEMMIE WASHINGTON—City Employee, Recreation Department: “Business isn’t serious about doing anything for the environment and neither is Nixon. He’s just playing games and he’s not even honest about it. He just says things that sound good; then he goes out and does what he has to in order to satisfy the conservative element. They probably think that Disney World is better than nature, anyway.”

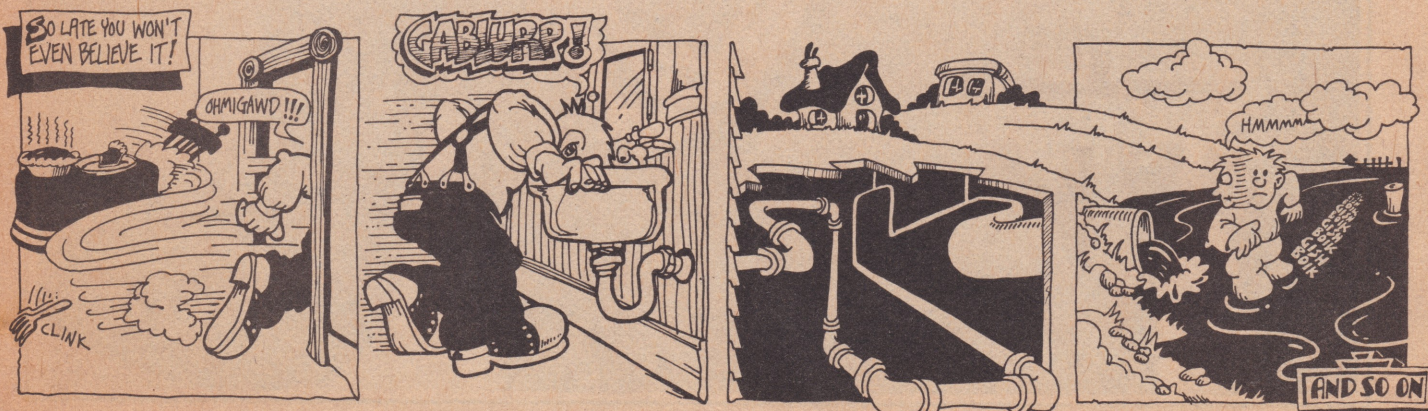
SUSAN YLVISAKER—Elementary School Teacher: “The government doesn’t care about the ecology movement. I don’t think they ever will. All of the glowing pronouncements they made when this thing first started—it’s all bullshit! They’ll do nothing and let it go on like that until they find people gasping for breath in the

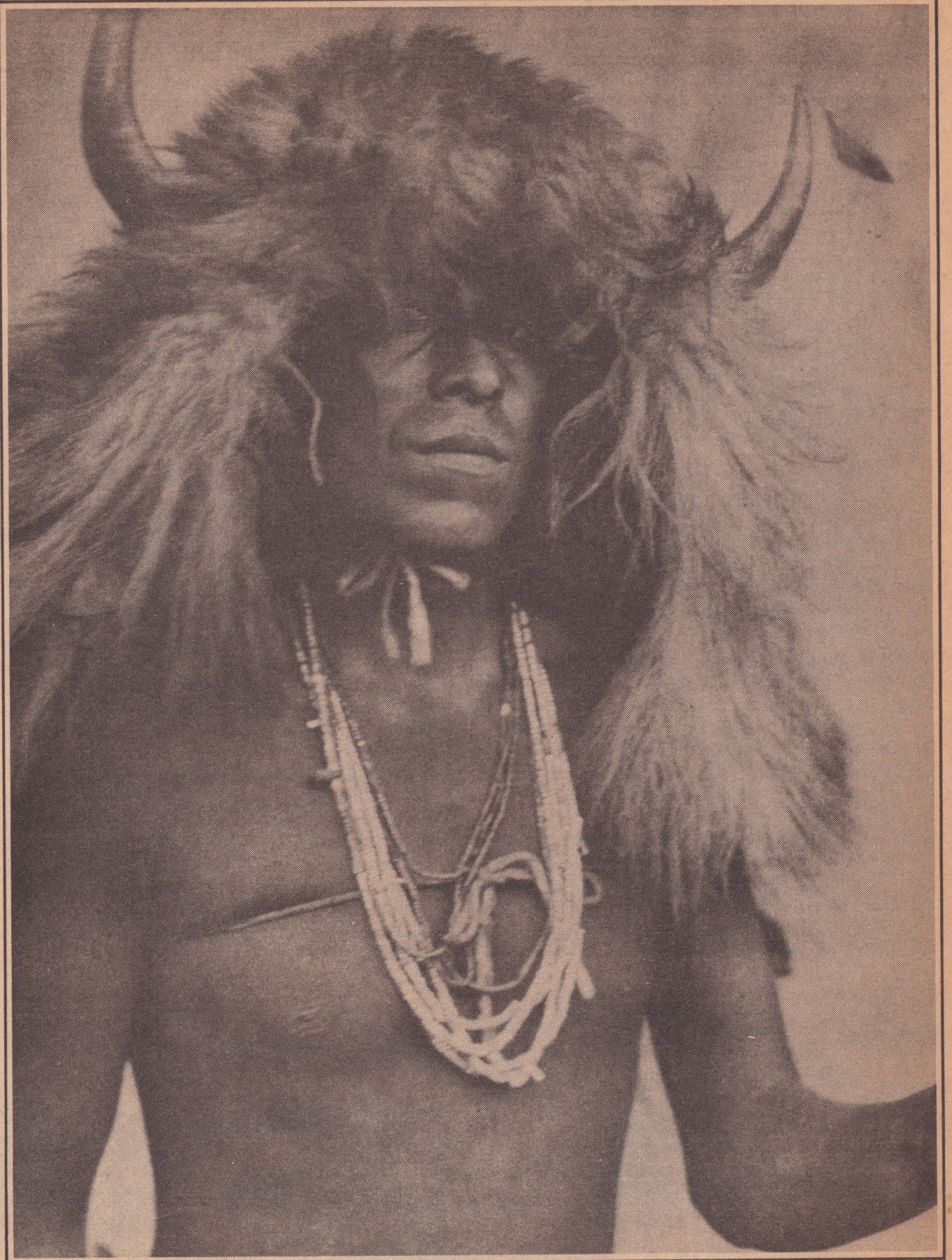
streets. And as long as the oil companies keep on contributing heavily to political campaigns, all those oil spills are going to continue to happen.”

ESTHER HAYWARD—Registered Nurse: “When it comes down to ecology or dollars, all those big businesses are out for the dollar. They only say things about the environment when it doesn’t cost them anything. They are definitely out to make the dollar first.”

A. J. GIGLIO—V.P. Environmental Services, Peabody: Galion Corporation: Backlash is the wrong word. A more appropriate word would be realistic reappraisal of the rate at which environmental action has to take place and the priorities that must be established. With government on one hand setting national pollution control levels and a timetable for enforcement, and with industry, utilities and municipalities on the other working to meet these standards, a growing opportunity exists for specialists who are qualified to monitor and test control equipment or to finance depollution devices. These disciplines form an embryonic industry with worldwide potential. At Peabody we call this “Industry Environmental Services.”

DON MELANDRY—Sociologist: “There isn’t the consuming interest in ecology that there once was—there doesn’t seem to be the concern for recycling that there was a year ago. Business interests are fighting back. You see those Shell ads on television about beautiful stations and how they fit in with the environment, and then they tell you how the water is purer in their plants when it goes out than when it came in. Can you believe that?”





SIA BUFFALO MASK

Once there was a man with a camera who loved American Indians so much that he made over 40,000 photographs of them. It took him thirty years to put together a final collection of 2220 prints which came to be regarded as the finest work of its kind ever to be accomplished. ¶ In 1900, Edward S. Curtis, who was then 32 years old, left Seattle with a cumbersome 14 x 17 inch view camera for Indian country. His vision was to record a vanishing race—the American Indian. Curtis had realised that the long wars and the ubiquitous white man had eliminated the traditional cultures in the eastern half of the United States. In the West, the Sioux, Navajo, Pueblo, Apache and the rest of the tribes had been relegated to reservations where final disintegration of traditional heritage was only a process of time. Curtis deeply respected the Indians and privately regarded their contact with the white man as something which could only lead to total decadence. ¶ As he wandered from high desert to great plains, from the mountains to the sea, he passed through the mythic heartbeat of over 80 Indian cultures. He did not restrict himself to just photography; Curtis diligently sought the reason to be of the North American Indian. He recorded their words, their myths. He watched the passage of their lives and developed an intuitive process which allowed him an extraordinary understanding of their sense of stewardship of the land. ¶ Edward Curtis possessed monumental energy. He was tough yet sensitive. For years he travelled with W. E. Myers who skillfully captured the Indians' words in rapid shorthand which he then typed out in his record of field notes. These two men, with their interpreter, worked in the field for months at a time, 16 hours a day, 7 days a week. "Our trio could do more work in a year than a lone investigator, writing in longhand, and lacking phonetic skill, could do in five years. ¶ Curtis must have been a man of supreme patience. He traveled thousands of miles by mule, wagon and boat, transporting his camera equipment and a field studio. His favorite possession was an old German lens which was responsible for the exquisite quality of his portraiture. He recorded all of his photographs on large glass plate negatives which were fragile and extremely difficult to handle. ¶ At one point after he had finished a sojourn with a remote tribe, his mule slipped down the side of a canyon smashing the glass plate negatives which represented months of intense work. No one knows what became of the mule. ¶ At the beginning of his career, Curtis was a poor man. For several years he financed his expeditions with very little money. Through chance and the inspiration of the moment, he was able to captivate the attention of a group of well-to-do easterners who recognized in the man and his work the mark of the artist. Before Curtis had reached 40, he had befriended both President Theodore Roosevelt and J. Pierpont Morgan. ¶ It was Morgan who chose to subsidize Curtis and thereby make possible his *magnus opus* which consisted of 20 portfolios of thirty-six prints each. Each portfolio was accompanied by a thick leather-bound volume which defined the cultural structure of the Indians portrayed in the photographs. The book also contained many prints. The first and only edition of Curtis' work was printed in sepia photo-gravure on the finest hand-made imported paper and was limited to 500 copies. ¶ The following prints are taken from Volumes 16 and 17 of "The North American Indian" by Edward S. Curtis reproduced by Karl Kernberger. They reflect life in the Indian Pueblos of New Mexico.

—Jack Loeffler

THE NORTH AMERICAN INDIAN

BEING A SERIES OF VOLUMES PICTURING
AND DESCRIBING

THE INDIANS OF THE UNITED STATES, THE
DOMINION OF CANADA, AND ALASKA

WRITTEN, ILLUSTRATED, AND
PUBLISHED BY
EDWARD S. CURTIS

EDITED BY
FREDERICK WEBB HODGE

FOREWORD BY
THEODORE ROOSEVELT

FIELD RESEARCH CONDUCTED UNDER THE
PATRONAGE OF
J. PIERPONT MORGAN



IN TWENTY VOLUMES
THIS, THE SIXTEENTH VOLUME, PUBLISHED IN THE YEAR
NINETEEN HUNDRED AND TWENTY-SIX



A FEAST DAY AT ACOMA

Franciscan missionaries early in the seventeenth century introduced certain public Christian rites among the Pueblos, which ever since have been performed, with an intermingling of native ceremonial practices, especially on the days of the saints to whose protection the villages were respectively assigned. The day of San Estevan, the patron saint of Acoma, is September second.

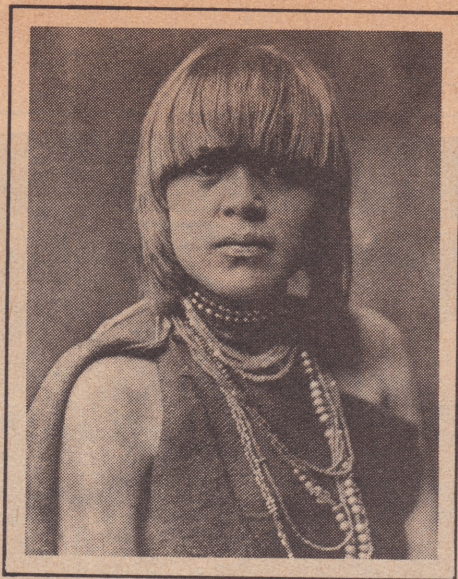


IAHLA ("WILLOW")—TAOS



A ZUNI WOMAN

Bowls of food are often thus carried on the head with a woven yucca ring during an intermission in or following a ceremony, when the participants feast.



POVI-TAMU ("FLOWER MORNING") —SAN ILDEFONSO

The flower concept is a favorite one in Tewa names, both masculine and feminine. The regular features of the comely Morning Flower are not exceptional, for most Tewa girls, and indeed most Pueblo girls, are not without attractiveness.



AT THE OLD WELL OF ACOMA

Members of Coronado's army of explorers in 1540 and Espejo in 1583 noted the "cisterns to collect snow and water" on the rock of Acoma.



THE FRUIT GATHERER—SAN ILDEFONSO

Among the valued gifts of the early Spanish priests was the peach. Every Pueblo has its orchards of scrubby, twisted trees, which without cultivation yield fruit of small size but agreeable flavor.



Recycling: "...only a stop gap measure until some real solutions are developed."

Remember recycling? It was *the* answer to the cries of "What can I do?" that rode the rising crest of eco-consciousness little more than a year ago. With a fanfare of press releases and a flourish of ads, the container industry set up depots to buy back used bottles and cans. Every weekend, concerned householders gathered in supermarket parking lots with station wagons full of bundled newspapers and delabeled bottles. Private groups set up their own recycling programs, and everyone felt they were doing their bit for dear old Mother Earth.

The centers are closed now, or open only a few hours a week, the press releases have dwindled away, and tons of newsprint molds, unused, in warehouses. It seems the container industry was more successful, and more intent, on getting good press and stopping complaints about eco-indifference than in encouraging any large cross-section of the population to recycle. They only provided an outlet—and a laborious one at that—for those who were already so environmentally concerned that they were willing to take the extra trouble to see that their trash was re-used.

WHOLE SYSTEM SHUTDOWN

There were other recycling centers, opened by private groups out of a concern about waste and a hope to

make a living helping to solve environmental problems. Those who ran private recycling operations encountered a multitude of problems that have convinced many people that individual recycling is not the answer it was once thought to be. The case of Whole Systems, a recycling operation that was shut down by its owners last November, illustrates how that disillusionment arose.

Whole Systems began in April, 1970, in Mill Valley, a San Francisco suburb. Its founder, Neil Smith, was a highly successful San Francisco architect who had become increasingly dissatisfied with what he was producing. He explains, "I was finding out that architecture in this country has no spiritual value, and the reason was that the society has none." He sold his architectural firm and started Whole Systems, hoping to recapture a feeling of worth in his work.

Whole Systems began with a staff of eight. From the beginning they lost an average of \$1000 a month. "I expected to lose money at first," Smith says, "but not that bad."

Rather than expecting people to cart their reusable trash to some central location, Whole Systems distributed burlap sacks for cans and bottles and contracted with the local garbage collectors to pick them up. Municipal law prevented the staff from making the pickup

by Margo Hinton

themselves. Since they had to pay the sanitation department \$12 to \$18 an hour, they had to charge their customers \$1.50 a month. They still lost money. This was the first disadvantage, and the least important.

Handling the cans and bottles was the second difficulty. Quick processing by hand was out of the question. Bottle companies required that the glass be broken and separated according to color—brown, green and clear—and all the neck rings had to be pried off the no deposit bottles with pliers. Cans also had to be sorted, and all this was in addition to the initial cleaning and sorting which was done by the homeowners.

STOMPING OUT GUILT, NOT PROBLEMS

The ultimate destination of cans and bottles once they are returned to industry for recycling presents a more important, philosophical problem. The glass is melted down to make new bottles. Aluminum cans are melted down to make new cans. Since the container industry, at this point, does not have the technology to separate tin from steel cheaply, tin-plate cans are crushed and used as a leaching agent in copper mines to separate low from high-grade ore. After that, they are disposed of in a dump or landfill.

This makes recycling a very unsatisfying business for anyone who, like Neil Smith, sees it as a means to slow down consumerism. The used material makes more containers, perpetuating the same old cycle of consumption, or it is put to one more temporary use and then discarded after all. "All we've been doing" says Smith, "is extending the whole industrial-technological problem."

This disappointing realization was reinforced by the community's reaction to recycling. Whole Systems was organized to educate people about waste and consumption. "We started Whole Systems to make people aware of the fact that it's one earth and it has to operate as a whole," Smith says. "Our second consideration was to help with the waste problem." They had hoped that as recycling spread throughout the community, people would begin to look for the biggest culprits behind the environmental mess. They had hoped that people would realize how much we waste and how little is done by big corporations to change the situation. They had hoped, maybe, people would stop buying overpackaged goods, stop buying This Year's Model—in the end, stop supporting the cycle of waste and surplus production.

Instead, Whole Systems found that they were assuaging the guilt of the concerned quarter. After a rapid initial growth, 20 to 25 percent of the community was participating in Whole Systems' program; then growth leveled off. While this is a fairly good percentage—the San Diego Recycling Center says it reaches less than one per cent of the population, the Washington D. C. Ecology Center can claim only one-tenth of one per cent—it seemed as if the usual crew of concerned people were the only steady participants. It was frustrating that so few new people could be brought to change

their habits in favor of the environment. The already concerned seemed to feel that by taking all this trouble with their trash, they were doing enough. Nobody was looking for a bigger solution and the Whole Systems staff was too busy breaking bottles and stomping cans to suggest any.

So Whole Systems shut down, and everybody stepped back to take stock of the situation. For the time being, there seems to be no ready means of attacking the waste problem as a whole without the complete cooperation of the container industry.

Meanwhile, some practical, short-term means are necessary to slow down the random disposal of containers. Smith has decided to initiate legal action on a local level, and has drafted a law requiring the use of returnable beverage containers to present to city councils. Even this small step promises to be difficult. At this point, it is not easy to get local governments to regulate containers and packaging. The container industry's influence is still far too great.

COMMUNITY PRIDE AND SOMETHING ELSE

People have tried. New York City's Environmental Protection Administration proposed a law a little less than a year ago which would impose a "recycling tax" on all non-food containers. The idea was to include the cost of disposal in the cost of the container. Container lobbyists from the paper, glass, and can industries got to work, running full-page newspaper ads and raising a great hue and cry. The city ended up passing a law that taxed plastic containers only, because the plastics people were the only ones who hadn't stooped to lobby.

This made for an interesting ordinance to say the least; for example, the plastic straps that hold six-packs of beer together were taxable as containers, but the beer cans themselves could only be called—something else.

The plastics industry, in a suit, sued the city. Hoping to make the best of a bad scene, the city attempted to make a case of the theory that plastics are more environmentally damaging than other container materials, but it wasn't enough. After being in force for a couple of months, the law was repealed.

It is only to be expected that container legislation will not be passed in a city the size of New York without a great deal of noise from the industries involved. But the container people are keeping their eye on small communities too. They went to battle in the city of South San Francisco last year, when three high school students unexpectedly got a law through the city council banning non-returnable beverage containers.

The students, Dave Fassler, Maureen Kirwin, and Bob Bowen, drafted the container law and presented it to the council as a semester project for an ecology course. The ordinance they drew up made it mandatory for beer and soda pop containers to be returnable; whether or not they would have a deposit was to be left

"Oregon is the only state so far to pass a law governing no-deposit bottles. When the bill comes into effect on October 1, 1972, it will ban the use of non-returnable bottles in the state."



Roger Lubin

Even in communities with no container laws, businessmen have noticed a change in buying habits indicative of a growing environmental awareness. Alden Hemmings, Jr., manager of a Lucky Supermarket in Fairfax, California, said that a year ago, 75 percent of the bottles he was selling were non-returnable. The ratio now, however, is about 50-50; and the percentage of returnables sold continues to grow.

"A year or two ago," according to Mr. Hemmings, "all your major chain stores were refusing to handle anything but no-deposit bottles. There didn't seem to be a market for anything else. But they're all pushing the deposit bottle now. I sell a 28-ounce non-returnable bottle for 28 cents, but we've also got the Party-Pak for 19 cents...and it's returnable."

"It's what the people seem to want," he continued. "I'm going to keep carrying returnable bottles even though I have to pay a boy \$3.00 an hour just to handle them."

Like other merchants, Alden Hemmings, Jr.'s process of change was a response to consumer demand. "When you get people asking you questions like 'Where is the nearest recycling center?' you just feel people out...and you roll with the tide."

—Continued

up to the manufacturers. On January 4, 1971, they presented their bill to the five-man city council, with a petition in its favor containing 450 signatures. There was no audience at the session. The council passed the bill 5-0.

Container manufacturers were taken completely by surprise, but they mustered their forces and responded with amazing speed. Two weeks later they were able to present to the city council a petition containing 1600 signatures of local residents. The petition said that the citizens of South San Francisco demanded the right of free and equal men everywhere to choose what kind of beverage containers they wanted to buy. The container people were dismayed that they had not been given a chance to state their case before the bill was passed. They stated it now, before an audience of 500 people. The council members voted again and were still for the measure, but this time only 3-2. The bill was due to go into effect July 1.

In February, Community Pride came to South San Francisco. Community Pride is the name for a series of recycling stations in various cities supported by several beer companies, Coca-Cola, the Glass Container Manufacturers Institute, American Can, and other container manufacturers.

Meanwhile emissaries from the container industry were presenting forcible arguments to the city council. "What you are doing is the first step toward disrupting

your economy," they cried. "Look at British Columbia, it's had a law like this in effect since the first of the year, and in British Columbia the grocery shelves are bare, the unemployment rate is soaring...The citizens of South San Francisco will be going to Daly City to shop. If you want to do something about the trash problem, support Community Pride, don't ban the no-deposit bottle!"

In April the council postponed the law's effective date for 90 days. The container people, encouraged, redoubled their efforts; they picked out the councilman most likely to waver and took him to L.A. to show him their recycling operations there. In August, the law was rescinded.

In September, Community Pride folded its tents and left South San Francisco. What with all this furor over the container law, they said, they couldn't seem to get anybody interested in recycling.

A SOLE SUCCESS

Oregon is the only state so far to pass a law governing no-deposit bottles. When the bill comes into effect, on October 1, 1972, it will ban the use of non-returnable bottles in the state. A nickel deposit will be required on all beverage bottles. The only exception will be the beer stubby, the brown returnable bottle which is standard for eleven breweries in the West.

Rich Chambers, a business man from Salem, Oregon, who lobbied intensively for the bill for three years, says that people seem to have grown more environmentally conscious since it was passed. Even though the measure will not be effective until next summer, the State Highway Department reports that little has begun to decrease, sales of returnable bottles are up, and people are starting to buy more quart-sized bottles so they will have fewer to return. Lucky Breweries reports that their best success in encouraging customers to recycle aluminum containers has come from the Pacific Northwest.

Kessler Cannon, Governor McCall's Administrative Assistant dealing with natural resources, says that he feels the law "is keeping public attention focused on reuse."

Mr. Cannon estimates that more than half of the other states have been in contact with Governor McCall's office asking for copies of the bill and information on how it originated. So far no other state legislature has made progress toward passing a similar ordinance. A recent attempt was made in Michigan, but the bill was defeated.

PAPER TIGER

The future of recycled paper looks more promising than that of recycled containers, but despite all the Boy Scout drives and municipal pick-ups, recycling is still a paper tiger in terms of the country's total paper production. The clay finish, high-gloss papers that are used in so many magazines are not recycleable with

present technology, and while some governments and big businesses are beginning to buy recycled paper for in-house use, this is still a small step.

At present, newsprint seems to be the most likely large volume outlet for recycled paper. Each ton of newspaper can comprise as much as 40 per cent of a homeowner's garbage. Many cities across the country, such as Madison, Wisconsin, have organized successful newspaper collection systems, and they have found that people *are* willing to bundle up their papers. The problem is that there are not yet enough customers to buy the old papers.

On an average, each person in the United States consumes a quarter ton of paper each year. This amounts to a total paper production of 58.5 million tons. The technology to recycle paper in this volume does not yet exist. Moreover, to make an operation of this size feasible, new markets for recycled paper will have to be found and channels of distribution will have to be developed.

The only company in the country that makes nothing but recycled paper is Garden State Paper Company with operations in New Jersey, Illinois, and California. Richard Crane, Garden State's California publicity director, says that this "ecology kick" has had little effect on the firm's sales. Their recycled newsprint has long been \$7 to \$10 cheaper per ton than fresh newsprint. The United States uses 10 million tons of newsprint each year, and Garden State has a reasonable 11 per cent of this market.

Mr. Crane pointed out that if any leading newspapers decided to use recycled paper exclusively, his company would be unable to meet their needs. The Los Angeles *Times*, for example, uses 350,000 tons of newsprint a year; the top capacity of Garden State's Pomona, California mill is only 95,000 tons a year.

The limited supply of recycled paper is not the only reason most large papers are reluctant to change over. They prefer to deal with six or seven suppliers so that a strike or breakdown in one will not leave them without paper. Most major newspapers also own at least part of their own mills, so they would have to re-tool their paper sources before they could begin using recycled paper.

The final problem is that some recycled newsprint tends to stretch and to lint up the type. The San Francisco *Examiner* uses about 100 rolls of recycled paper each week and their pressroom foreman says, "It's not as good as fresh newsprint, but it's still new. They have some technical developments that need to be ironed out. It tends to lint, and when that happens, sometimes you have to shut down and wash the plates. Our classified section is the worst that way. Given a few more years, it'll be just as good as any other kind of paper."

VIRGINS RIDE CHEAPER

The great inert mass of American business lies at the center of the waste and consumption problem. Nobody seems to doubt that solid waste manage-

ment will be one of the fastest growing industries in the next decade, and any firm is glad to get a government contract to explore the possibilities. But business isn't going to modify its present modes of production to decrease resource consumption until pressure is applied. The few recycling projects that have been undertaken have been limited by the fact that recycling large amounts of material is just not profitable yet.

Federal policies will need considerable revision before recycling becomes a profitable business for anyone. Most laws governing industry were passed when it was considered wise to encourage the development of America's natural resources rather than their conservation. For example, it costs only \$1.64 to ship virgin ore by rail, but you have to pay \$4.12 to ship scrap metal. Similarly, a lumber company's taxes are assessed according to how many trees it owns, and the taxes are decreased in proportion to how thoroughly the company "develops" its resources—according to how many trees it cuts down.

The federal budget for research and development in solid waste management is still sketchy and spread thinly among various projects. The Bureau of Mines has a project at Edmonston, Maryland, to investigate whether we ought to incinerate trash and recover only non-combustibles, or whether we ought to attempt to use everything, paper, plastics and all. One plant, already in operation, processes 12 tons of incinerated residue a day with standard metallurgy equipment. Glass and metal are being recovered in marketable form. A newer plant which has just gone into operation separates unburned garbage into its saleable components: iron, aluminum and other non-ferrous metals, colorless glass, colored glass, plastics and paper.

BLACK CLAWSON AND THE HYDRAPULPER

Black Clawson, at Franklin, Ohio, is the only municipal recycling plant in operation that is supported by the federal government. Black Clawson's recycling operation has completely replaced the local garbage system except for sewage treatment and the disposal of demolition waste from wrecked buildings. Two-thirds of the \$2,100,000 project is funded by the Environmental Protection Agency, and one-third by the city of Franklin.

Black Clawson is using a Hydrapulper which the company invented some years ago to turn waste paper into pulp and separate the other materials from it. The Hydrapulper is standard equipment in the paper industry, but it lacks finesse for recycling. The only usable products the Franklin plant now produces are pulp and iron.

Glass comes out of the Hydrapulper mixed with sand, plastic, bones and aluminum. The Glass Container Manufacturers Institute has received a grant from the EPA to build a sister plant with an optical sorter to

separate the glass from the rest of the residue. Ora Smith, an engineer at the plant, says that it is much more economical to build the extra system—at a cost of \$300,000—than to have the glass sorted by hand.

Right now the Hydrapulper plant processes 50 tons of garbage a day. It is designed for a daily 150 ton maximum which it will reach around 1990.

The Black Clawson facility will soon be part of another crucial experiment. A sewage treatment plant is being built and the two plants will have a complicated interdependency. The solid waste plant will burn the sludge from the sewage treatment plant; the sewage treatment plant will process the water from the hydrapulper and return it, along with the rest of its treated effluent, for re-use in the solid waste plant. Fly ash from the solid waste plant will be used as a settling agent in the sewage treatment plant.

Says Mr. Volks, "We've had thousands of inquiries from cities all over the world. We're negotiating with several other cities about installing similar plants."

GARBAGE IN, GARBAGE OUT

If the Black Clawson experiment proves successful, it could mean a total revolution in the treatment of solid waste. But the Franklin project is one of a kind, and innovations in the field are not coming fast enough. It is up to the individual, on one hand, and government—especially at the federal level—on the other, to see to it that the re-use of material becomes feasible and that current extravagant rates of production become unprofitable.

Immediate impact must come from the government in the form of rates and taxes that favor recycling the glass, metal and paper that is currently winding up in city dumps. Federal research in the solid waste problem needs much more capital and some coherent form of organization. So far research and development have been hesitant and there seems to be no comprehensive plan of attack. Both the Bureau of Mines and the EPA are conducting experiments, but their projects, for the most part, seem to have been setup wherever industry thought it had a gadget that could do the job. Some kind of consistent direction is necessary or there will be a greater waste of money and effort than even the US government is wont to achieve.

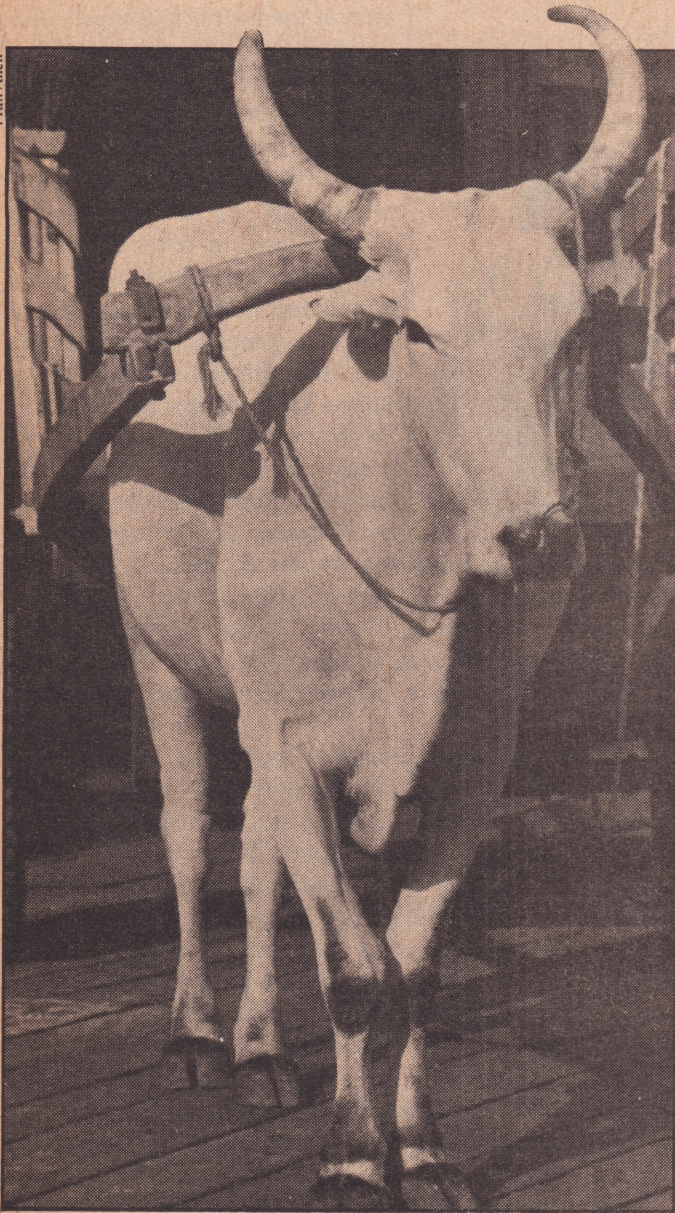
The best thing we private citizens can do is remove ourselves from the merry-go-round; stop being such ravenous consumers, so that industry will be forced to stop producing so extravagantly. Sure, recycling cans and bottles should continue, since the only current alternative is the city dump, but we should remember that it's only a stop gap measure until some real solutions are developed. In the long run, it is necessary for us to change the way we live. As Neil Smith says, "The only way to cut down on the amount of garbage this country produces is to stop *buying* the garbage this country produces."



Sacred
Cow
vs
The
Economists

BUM STEER IN INDIA

Fran Allen



The warp and woof of societies are made up of a complex array of customs and beliefs as well as social and political institutions. The economist must be wary of tampering with them, for he may unwittingly cause the unraveling of the entire fabric of society. The sacred cow of India has long been a target for western economists who are concerned with India's underfed masses. The western eye sees the sacred cow as an animal that competes, unmolested, with humans for food and, since Hindus do not eat meat, never returns its protein to the human community. But it is dangerous to consider any institution such as the sacred cow outside the context of the society which formed it.

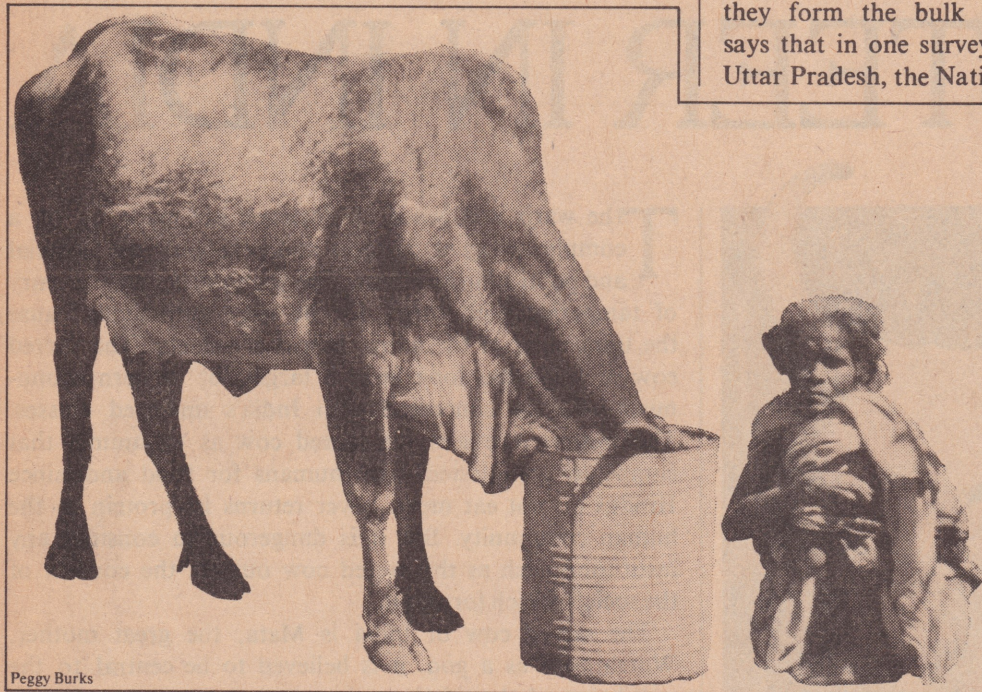
The sacred cow of India is Mata, the great mother. Worshipped as a god, it is believed to be central to the well-being of the whole society and the concept of it as a motherly, all-encompassing, source of life is found throughout the society. A cow is never killed, and the mere rumor that Moslems have slaughtered a cow for its meat is often enough to start a riot. To a Hindu, eating a cow would seem like eating the flesh of your mother.

The burden of cultural conditioning which the western economist brings to any consideration of India's problems is reflected in the English phrase "sacred cow" which we use to mean anything useless and hollow which people worship without reason. Unfortunately, some basic concepts of western economics become "sacred cows" themselves when they are applied outside of the societies which produced them.

The economist who wants to abolish the sacred cow would do well to consider the results of the end of serfdom in England which Karl Polanyi describes in *The Great Transformation*. Strict legal restrictions on physical mobility bound laborers to their parishes until the late eighteenth century. Just after the serfs were freed, a welfare system was instituted to shelter the common man from the tempest of the market. Many people, conditioned by servitude and unused to an open market, preferred poor relief to wages. Then the Reform Bill of

1832 and the Poor Law Amendment of 1834 put an end to this last humiliating protection, with the result that society saw "an almost miraculous increase in production accompanied by near starvation of the masses."

The lesson we can learn from the freeing of the serfs is most important for today's economists who are intent on "developing" the Third World. They give little indication that they have given any consideration to the complex roles played by local institutions. These institutions often play important roles which are necessary to maintain the stability of the economy. Their a-



Peggy Burks

brupt abolition can create infinitely more hardships than those imposed on the English serfs when they were cut loose from the moorings of traditional paternalism.

Almost all contemporary economists seem united in condemning the sacred cow. S. N. Mishra expressed the typical economist's view when he said, "Legislation of cattle slaughter will leave every sector of society better and no sector worse off. The measure is self propelling in that it distributes the welfare gains by itself. The measure, apart from the cost of adoption, does not involve any cost."

Ghandi disagreed: "Why the cow was selected for apotheosis is obvious to me. The cow was in India the best companion. Not only did she give milk, but she also made agriculture possible."

Both Ghandi and the economists are right from their own point of view. The economists argue that reducing the number of uneconomic animals would make it easier to improve the quality of those that remain. On the other hand, it may be rational for the Indians to maintain a large number of scrawny, aged cattle.

No one can know when any particular cow will begin to lactate or conceive again, so it is difficult to know which cattle should be culled. The farmer rations his

feed among his animals according to their productivity. Since the cost involved in maintaining the oldest cattle is almost nil, if one comes back into productivity, it is a windfall; and if one dies, it is a windfall for the untouchables for whom carrion is a major source of protein.

The untouchables form a caste of Indian society that is so low on the social scale, they are considered sub-human. Despite government attempts to eradicate the stigma of "untouchable," the system persists and untouchables remain most numerous in irrigated areas where they form the bulk of landless laborers. Kusim Nair says that in one survey of the district of Basti in Eastern Uttar Pradesh, the National Council of Economic Research

found that "Eating carrion is common. Almost a fifth of the population of the district is compelled to resort to these abnormal practices."

Cattle are most likely to die during times of stress or famine, just when the malnourished most need protein. The habit of many primitive people of eating protein during times of stress—funerals, war parties—may be related to an adaptation in which antibody production is mobilized during the greatest need and strain. Perhaps we can think of the marginal cattle as "protein banks." Society invests a portion of its meager surplus of vegetable matter in these cattle during good times so that

it can make withdrawals in times of need. If slaughter became commonplace, unproductive cattle would be sent to the butcher, and their protein would nourish the rich instead of those who need it most. The slaughter taboo has a subtle income distributing effect built into it.

Suppose the economists are correct that India would be better off if some of its cattle were culled. Alan Heston estimates that if India slaughtered 30 million female cattle, those remaining would be able to convert the same feed supply into more milk, meat, and dung, and the hides would be of superior quality. Which cattle would be slaughtered? This question is important since many of the dry, marginal cattle are owned by poor peasants. The reason so many of them are underfed and neglected is that the resources for feeding them are unevenly distributed. If the poor peasants' cattle are slaughtered, are they going to be able to buy or rent the services which their cattle now give them for almost no cost?

Aside from the socio-economic effects of the sacred cow, it has qualities which enable it to play a unique ecological role. It is able to manufacture protein in the form of milk and meat. Its dung provides an excellent

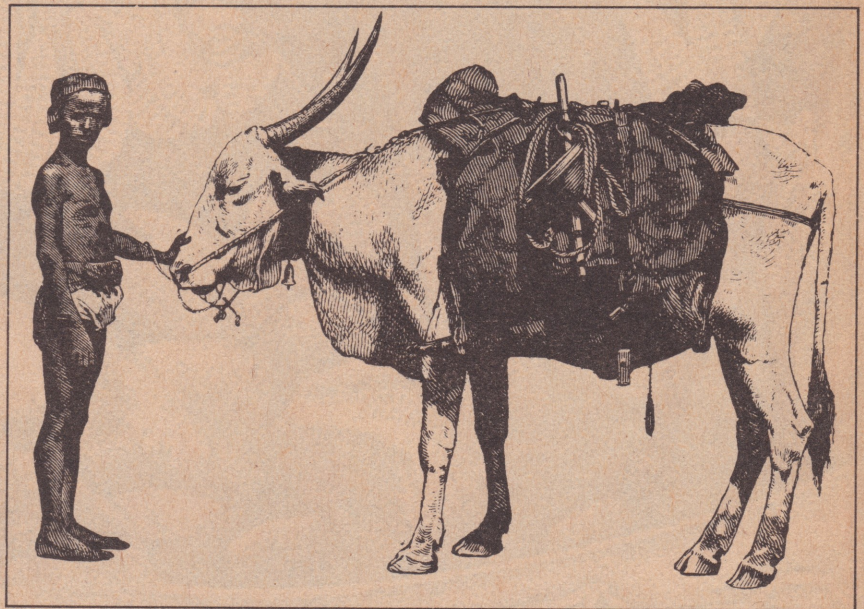
source of fertilizer which is also used for fuel—the annual amount of dung used as fuel in India is estimated to be equivalent to over 35 million tons of coal—and the bullock pulls the peasants' plows and carts. Remarkably, the cow can do all this without consuming any protein at all. The cow can live on non-edible organic waste such as stalks of rice and wheat; it can even consume large amounts of paper in its diet. Paul Meinhardt says that as much as 50 per cent of Holstein diets have been successfully replaced by paper and in some cases paper diets have resulted in higher beef to fat ratios and 20 per cent faster gain. In short, the cow need not compete with humans for food.

If the taboo on cattle slaughter were lifted, economists argue, the peasant would, of course, still have the option to use traditional methods; just let the market determine who does what. But if we accept that point of view, we must face up to certain external economies. Changing the ancient custom would undoubtedly have a profound effect on the whole society, and there are some questions to be answered. If slaughter becomes profitable how will the untouchables get their protein? What will this mean for the rural population as a whole if, once slaughter is permitted, tractors replace bullocks? What sort of employment will the rural population find? Unless we find, or already have, a form of safe atomic technology, we are facing an energy crisis, and our fossil fuels represent a fixed stock of capital. Replacing the rice-stalk eating bullock with a tractor means a more rapid drain on fossil fuels.

We should also consider the modern cattle raising methods which economists would like to introduce into India, and see what changes the Indian farmer could expect. Meinhardt reports of US cattle, "It is estimated that as much as 6.5 out of 100 pounds of weight put on cattle has to be replaced due to transportation stress. Cattle may be transported as many as 13 times in a lifetime with freight charges adding more than two cents to the final cost of a pound of beef. Probably 50 to 60 per cent of cattle cost in the US are due to costs of transportation." The western economist who wants to modernize the wasteful sacred cow system should explain this to the "superstitious" Indian with the sacred cow in his backyard.

Because of the expense of transportation, modernized Indian cattlemen might find it cheaper to feed their stock more concentrated foodstuffs like grain or fish protein. In 1968, Peru and Chile shipped about 700,000 tons of high protein fish products which were mostly fed to animals. Moreover, in the US from 1954 to 1956, more than 72 per cent of the tonnage of all our harvested crops was used for feeding livestock. US cattle certainly do compete for food with humans.

Because cattle are no longer raised on farms in the United States, the nutrient exchange between land and livestock is no longer direct. For the most part, it still seems more "economical" to most of the livestock industry to leave both dung and organic refuse to build up as solid waste disposal problems. Even if these wastes were fed to the cattle, the dung would still remain in the city since it is too bulky to ship back to the farms as fertilizer. With the cattle separated from the farms, farmers often find it cheaper to burn "waste" products like rice and wheat stalks so that the useful materials are converted into air pollution. Then since the soil loses its fertility as its nutrients are shipped to the city, the farmer must buy fertilizers from factories.



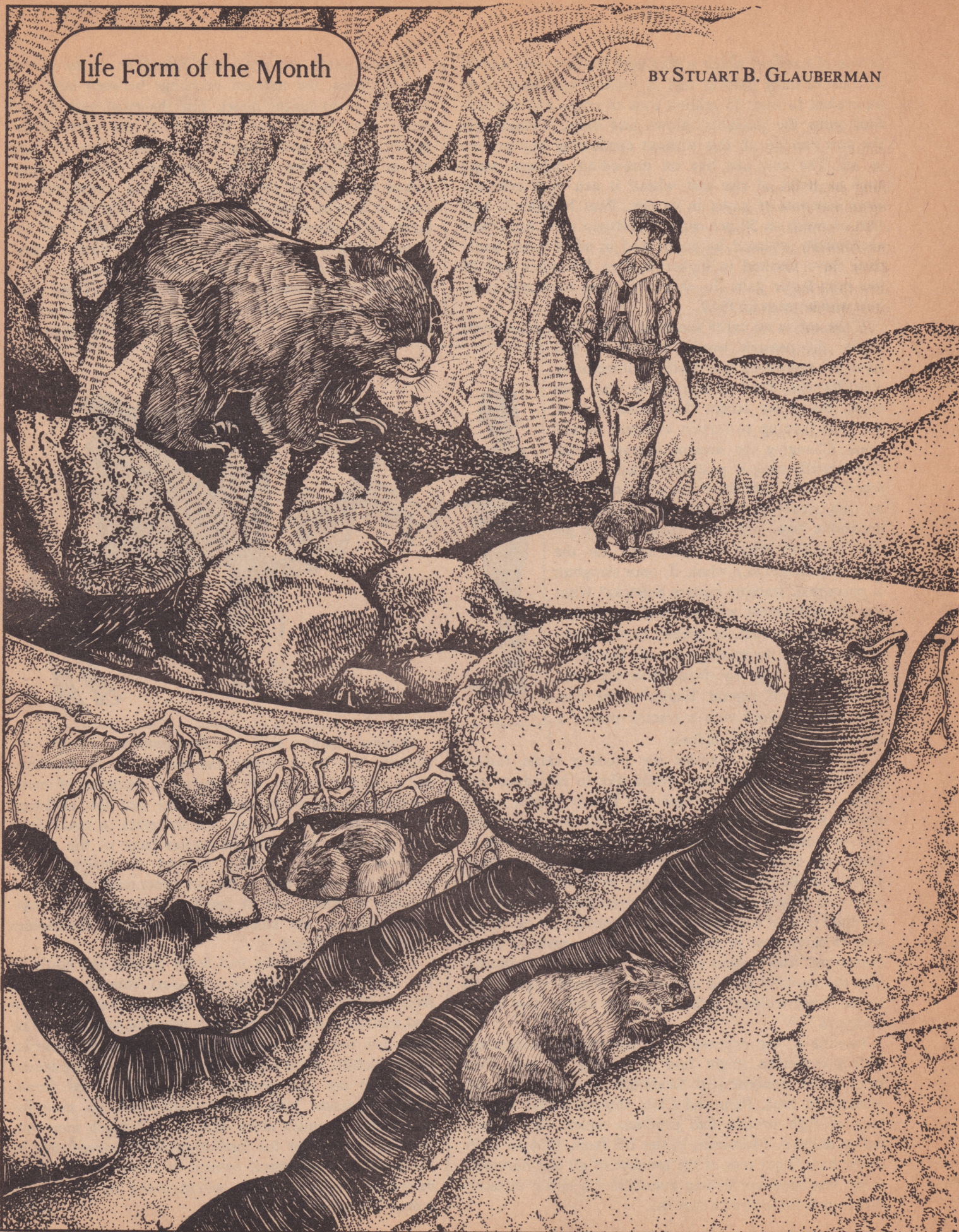
Howard Odum said in *Environment, Power and Society*, "the living forests and reefs have an economy, but instead of money, the currency is made up of materials like phosphorous, carbon, water and the exchange of work services. Plants use the minerals to make food and the consumer sends the wastes back to the plant." The sacred cow probably evolved to maintain this mineral economy, and it has its functional counterpart in parts of Africa and in the Yakut culture where cattle or reindeer are killed only in religious ceremonies or in the times of need.

Long ago when India had fewer people, she could be less careful of the delicate ecological balance. In those days Indians ate meat. Today, the traditional economy and ecology is strained, possibly near the breaking point. India has too many people and a heritage of centuries of colonialism. It's a simple matter to point to the sacred cattle and say that poverty is the fault of the impoverished peasant who should simply sell his cow for slaughter. It is much more difficult, and much more important, to consider the institution of the sacred cow in the social and ecological context of India and to really determine whether anyone would profit by the acceptance of slaughter.



Life Form of the Month

BY STUART B. GLAUBERMAN



WOMBATS

Wombats are any of several sturdily built Australian marsupials (family *Vombatidae*) having stocky bodies, short legs, and rudimentary tails, and in general resembling small bears. The clawed feet of the little burrowing animal are well adapted for digging life.

The popular moniker "wombat" was adopted from the Aboriginal name commonly known near the Nepean River in 1798. Though seemingly slow-moving and slow-thinking, wombats can really get it on and move at a fast shuffle, or clumsy but cool and effective gallop.

P. ursinus, a well-known wombat, to name but one, was a smallish animal of the species of Tasmania and the Bass Strait Islands, who was reported in 1797 for what I don't know.

The common wombat, who is by no means common,

is nonetheless called by the rather common name of *P. mitchelli*, the largest of whom is up to four feet in length. *Mitchelli* has coarse hair and is found in the residual forests of southeast Australia. The wombat is not protected by the Aussies and pity 'tis. In fact there is a scalp bounty paid in some areas.

FURRY

The softer furred, hairy-nosed wombat, everybody's favorite, is named *Lasiorhinus Latifrons*, a funny name for a wombat. *L.L.* was formerly widespread in drier woodland country from South Australia to Queensland, but now is found only in patches, including the Blanche- town area of the lower River where a sanctuary is being Murray developed

(peace at last).

—Continued



Wombat teeth differ entirely from those of all other marsupials. The wombat resembles the beaver in having four large chisel-like incisors, easily capable of cutting tree roots. A recent observer who became intimate points out remarkable superficial resemblance to the teeth of the ground squirrel or marmot of Central Asia.

The female wombat has a pouch containing two teats; the pouch faces backwards to facilitate burrowing. The young, usually a single, a loner, are born in autumn (which is spring everywhere else), are nourished in the pouch over winter (summer), and weaned in the spring (fall).

Early Australian settlers relished the wombat as "badger ham." They also complained that the powerful beasts tore holes in their fences and dug burrows which provided a refuge for rabbits—not to mention that as they are graminivorous, wombats raid crops with revolutionary fervor. In company with rabbits, wombats, both naked-nosed and hairy-nosed, have been gassed, poisoned and shot.

FIERCE

Many wombats' burrows are said to be so spacious that a child could crawl into their nesting chambers, but even dogs are ill-advised to enter them. When gripped by the rump, wombats have a habit of lashing out suddenly with both hindlegs. Dogs find it hard to get a grip on them inside their burrows because of the wombat's lack of tail; and the skin on their hindquarters is so tough that a dog's teeth can hardly penetrate it. Human beings endeavoring to pull a wombat out of a burrow may expect to get their hands and arms painfully crushed in this way.

Although wombats live alone and only team up during the mating season, many of their burrows are interconnected. One wombat warren was found to be half a mile long and over 60 yards wide. It was impossible to ascertain whether the inhabitants led any sort of regular communal existence because the communards were not letting on to any of their secrets.

The common wombat, so-called, makes a burrow 10 to 15 feet long from the base of a rock or tree, ending in a leaf-lined nest. Wombats may burrow under rabbit or dingo fences, if they feel like it, and the burrows often harbor rabbits during extermination campaigns—solidarity forever.

FRIENDLY

The German naturalist Grzimek reports that the first wombat taken to England lived for two years at the Royal College of Surgeons. He was examined there by a number of distinguished anatomists and was very friendly towards people that liked him, resting his forepaws on their knees or sleeping on their laps. He even allowed children to carry him about and he never bit anyone in earnest.

Because wombats tolerate life in captivity so well, many of them have been sent to zoos abroad. A hairy-nosed survived in a London zoo for 17 years and a naked-nosed for 20. One wombat who escaped from the Rome Zoo in November returned in March.

Fishermen on King Island in the Bass Strait used to amuse themselves by keeping wombats in the same way others keep dogs. These tame marsupials would vanish into the woods by day, and return home at nightfall.

A woman at Bullabulla N.S.W. had a pet wombat which had been caught at the age of six months. The animal used to dig burrows in her garden but never harmed any plants. It was a playful creature and would roll around, stand on its hindlegs, and try to butt like a goat. It also ran through the fields with the children and came into the house when it was hungry.

Like many other animals, wombats only seem to be friendly towards man while still young—and uneducated. Once, Australian naturalist Harry Frauca was trying to photograph a tame wombat in a paddock when the animal suddenly charged him with a loud growl. Its rock-hard head crashed into Frauca's leg, sending him reeling backwards. The wombat followed him and attacked again. Having made an inch-deep hole in the naturalist's right leg, biting through gum boot, trousers and woolen socks, the wombat split. Frauca was confined to bed for a full week.

FUNNY

One afternoon while trying to find lyrebirds during a five-day stop in Australia, Gerald Durrell noted a crackling of twigs and discovered a portly gray animal about the size of a large bulldog shuffling toward him. Mr. Durrell recognized it immediately as a wombat, for in the past he had once had a long, passionate affair with one of these enchanting animals—he spares us the tender personal details. He has been enamored of the species ever since.

The wombat, having appeared out of the undergrowth, paused for a moment and sneezed violently with a melancholy air. Then he shook himself and walked up the path with the slow, flat-footed, resigned walk of a teddy bear who knows he is no longer favorite of the nursery. Mr. Durrell said:

"He approached me in this dispirited manner, his eyes blank, obviously thinking deep and morbid thoughts."

When he noticed Mr. Durrell, he did not rush off into the forest—perhaps recognizing the former lover of his species—he did not even check his advance. Mr. Durrell describes the encounter, thusly:

"He walked straight up to my legs and proceeded to examine my trousers and shoes with a faintly disinterested air. Then he sneezed again, muttered a heart-rending sigh, pushed past me unceremoniously and continued up the path."

It did not prove to be a way of precipitating an orgy. 



Earthside Missile Base is the brainchild of Leslie Clark Stevens and Robin Cranston. Both, by their own admission are ESTmen — steersmen of the spaceship Earth. Est, from the Latin “it is,” is a concept developed by Stevens in his book EST—The Steersman Handbook, Charts of the Coming Decade of Conflict. The book, a McLuhan-like treatment of the “Earthian” crisis, defines Est people as “those who are capable of handling the systems and technologies necessary to the whole earth. They are not specialists, although they have mastered specialties. Est (or, here and now) people are genuinely comprehensive and include all of mankind’s capabilities. Prime movers of the Movement, they are transformers of energy. Naturally at home in the simulsense, they are basically non-linear but have also achieved linear capability which they include as a useful skill but not as a dominant way of life.”

Stevens, a TV and film producer, and Robin Cranston, son of Senator Alan Cranston (Dem-Ca) and Stevens’ assistant in the TV world, are creating Earthside Missile Base as a symbol which “will grow from the ground up to further the principles of sound ecology.” Earthside Missile Base embodies the EST philosophy as well as an other-worldly, television, science-fiction-like quality. It is indeed possible that the prospectus for Earthside is interchangeable with a script for *Outer Limits*. It may never get off the ground; however, in terms of their plan for the development of the Base, it is proceeding according to schedule.

A product of the media age, Leslie Clark Stevens has, in some sense, become what he beheld. At this point, it’s hard to figure out whether Earthside will become Stevens or Stevens will become Earthside. Some of the pilot projects they hope to have underway in the near future include an organic produce farm, experimental sub-surface cultivation, mycology research, a solar furnace and a waste recycling station. In addition, an information center including an AM-FM eco-radio station film/videotape studios, and a graphics center will spread the word.



Photos by Roger Lubin

“Est Man, Steersman of the planet Earth, also known as Leslie Clark Stevens, is about to make his move.”

Located in the bedrock of the Sierra foothills, some 40 miles east of Sacramento, Earthside is an amazing “city” buried beneath the surface of the ground. It consists of 55 acres of tunnels, domes, blast locks, propellant terminals, generator stations, liquid oxygen tanks, air ducts and giant silos 15 stories deep. This incredible complex of steel-reinforced concrete was built to withstand atomic attack and was the home of the largest missile in the U.S. nuclear arsenal: The Titan ICBM. The installation was abandoned in 1964, and in 1971, it was purchased by a non-profit, public corporation, the Experimental Systems Technology Foundation. Their stated purpose is “to develop a permanent ecology center designed to activate pilot projects as models for ecology planning and to serve as a primary source for World Ecology.

R.L.

PHASE I

“PHASE. Matching frequency, vibrational interlock. (Modulation of phase: wherein a strong interlocked signal alters and modifies a weaker signal by shifting frequency.) Tactical phasing, see Mongoose tactics.” L. Clark Stevens, *The Steersman Handbook*.

PHASE II

Photograph of a man standing on a ledge inside a concrete tower. The tower’s only occupant, a precarious climber, stares expectantly out of the picture. The same man is next seen climbing a ladder to what might be an escape hatch.

Est Man, Steersman of the planet Earth, also known as Leslie Clark Stevens, is about to make his move. With the help of his young friend Robin and other fellow Steersmen, Est Man will reinforce the natural drift of the world and prepare the way for “Love, Peace and Freedom.”

According to dictates of some beneficent, unseen force, these historical navigators as simulsense men, transformers of energy, and complete representatives of the Electronic Social Transformation shall inform the ship Earth and assist it in following its natural course....

PHASE III

Seated at his desk in a seemingly ordinary Warner Brothers production office is Leslie Clark Stevens. Sitting beside me, on the couch, is Robin Cranston. Both Est men are dressed in fashionable anonymous, favoring roughshod attire—Leslie wears a brown Levi shirt and black denims, Robin wears Levis with a corduroy sports coat. Both men have Caesar haircuts.

Spread out on the floor are black-and-white poster photographs of domes, access tunnels, generator stations, missile silos, and a picture of a concrete door that weighs eighty tons. There is a great shot of Leslie in a little rubber raft, floating in a pond that has formed at the bottom of one of the silos (one hundred and fifty feet deep). Commenting on his own explorations, Robin says that “you get the sense of man going insane.”

What exactly is Earthside? In so many words, Earthside is a nest of death soon to be converted into

an ecology center which will rid the earth of all environmental problems at a nominal price.

“I first heard of Earthside Missile Base thru some guys who were backpacking,” said Leslie Clark Stevens. “Peter Clark, a guy who just wanders around and knows things, kept running across this peculiar white elephant and told me about it. I had heard about it from some other people too, and I found myself saying ‘What’s this all about?’ We went up there and looked at it. It’s a big strange, cavernous bunch of tunnels in total

disrepair. This was well over a year ago, and it’s taken that long to get the political crap taken care of; so that the county board of supervisors and the planning commission were softened up and receptive to our idea.”

The point of the whole thing is how to turn swords into plowshares and—more problematic—how to turn shit into gold. When Robin so deftly expresses the process of turning manure into “Ecoil” (a biodegradable fuel) we laugh like we were telling an old joke for the first time.



PHASE IV

(Stranger in a Strange Land).

Leslie Clark Stevens goes back in time. Born in Washington, D. C., his father was a vice-admiral and his mother was a Daughter of the American Revolution. In retrospect, he sees himself as the archetype of the corrupted innocent. As an aspiring Broadway playwright he learned that you get only one artistic flop. He also learned something about commercial success, and developed the successful *Outer Limits* TV series. He was told to think of *Outer Limits* as an hour-long commercial. “Sell cigarettes,” they said, “and we don’t care what else you do.” But they suggested, in fact they stipulated, the weekly creation of a monster that might grab that segment of the audience which the message eluded. A part of the message was simply “be

kind to a stranger.” I remember that in one case the strangers were giant criminal ants exiled from Mars. At times the monster and the message were almost indistinguishable. But that’s yesterday’s story. Today there are other things to talk about, the near-ineffable for instance, what it means to be in touch with great cosmic flows—to be the receptacle of “something like nothing we understand.”

Leslie props his feet up on a chair (black loafers, disappointing gear for a Steersman. I glance down and am relieved to find Robin wearing boots. Maybe the problem is that I’m tuned in to the wrong channel.) Leslie folds his arms across his chest and, looking defiantly friendly, begins a loving narration of World Life Day/Malibu/Winter Solstice, 1970. Robin says, “Oh yeah,” and Leslie pauses

to unwrap a sour ball which he pops into his mouth and sucks on as he talks.

“There it was—now you’ve got to get the picture—all the mikes tied into the maritime navigational fixes, people resting after dancing and relating to each other all day, the micro-seconds ticking away and *then*—at the exact moment when the earth reverses its field—there is utter darkness and nothing but the sound of this hydrogen static, the actual sound of the universe echoing over the microphones. And everybody felt it. “It was, to be exact, a true no-horsing-around magic moment. An Est moment, when some flow beyond the finite was flowing through everybody. (World Life Day, as envisioned by Leslie, is a day when everybody in time and space will relate to Earth.)

PHASE IV

I no longer believe that it is just a matter of the wrong channel. I want to know what the difference is, conceptually, between Earthside and the Warner Brothers back-lot. Begging the question, I finally mention that I have never talked to a Utopian before.

"Wait," Leslie says, "don't you see that what we are talking about is an actual place, a real thing? If we stopped now," he explains, "there would still be a poppy in a missile base."

"You know," said Leslie, "I've heard Jacques Cousteau face to face say flat out that 40 percent of the plankton in the ocean has died within the last 30 years. But the average person doesn't respond to that. They are just not interested in anything outside the scope of their immediate and tangible lives. They are interested in their food, their amusements, their sex lives—and they are not interested in anything abstract or invisible. When you realize that, then you know you gotta get Jack Nicholson or some other celebrity to stand there, who they are interested in, and have him say, 'Let's hear it for the Earthside Missile-Base' and then, maybe, they'll start to support it. If you can personify their interest into something or somebody they can relate to, then you can go through their selfish interests and you can expand their awareness." He smiles joyously, and I blink my eyes and look at Robin—who is also smiling joyously.

The research and conversion that Earthside Missile Base will activate is the business of a non-profit, open, public corporation called the Experiment Systems Technology Foundation. (I make a mental note to keep an open mind and reread the first few sections of Part II of *The Steersman Handbook*, which, Leslie says, he wrote

on a "truth high.")

"What about money, I mean, what makes it go," I ask.

"At this stage of the game the project is being financed right out of pocket," said Stevens, "mostly mine. However, Experimental Systems Technology is a tax exempt foundation and people can donate money to it as a tax write-off. Another way we'll finance ourselves will be through a documentary film about the base. We've

also got show business personalities who will help us. We have enough money to sustain it on a basic level. In order to develop the base, we have to have fund raisers and direct mail solicitations. We have access to television. We're now shaping up a show for KTTV (Channel 11, Los Angeles) called *Earthside Missile Base*. It will be a half-hour, public service, weekly show . . . and we'll get to plug the hell out of the base."



PHASE OUT

Remembering Robin's bedazzled face. Light of Huck and Holden falling from a freckled smile when he must leave the possibility of a still-intact control center and pursue the charged commentary of the Base brochure. I recall him looking at a publication and saying how he loves animals—how, when he was a kid, he had two monkeys and one pig that was as tame as a dog. The kid climbed Mt. Whitney at the age of fifteen and was the co-creator of the green stars-and-bars; a Berkeley student who later did speed reading experiments with autistic children but decided to use his genetic heritage and

family name to further the cause of ecology. Beardsley and Miro hang side by side on the wall that separates the creator of *Outer Limits* from the director of *The Last Picture Show* next door.

Leslie shows me that graph of his brain wave, which I calculate to be over two football fields long. A scrimshaw whale's tooth dangles from his hip. An antique microscope sits on the table in front of him and a small wooden Buddha shrine sits behind him. East meets West, age meets youth—and Robin excitedly relates how he found that he could move an electric train with his mind when he had his brain wave done. But when he thought about doing it, the train stopped. I feel bad about that. 

Healthier and less expensive than store bought, home made syrups enhance a cooks versatility. Improvise one of your own. Use it to baste, marinate, can, glaze, flavor, ornament.

Express Yourself

Your favorite organic juice enables you to produce a syrup in fifteen minutes. You'll need a saucepan, wire whip or wooden spoon, measuring cup and the ingredients listed below:

Basic Syrup Recipe

*1 cube butter or soy margarine
1 1/2 cups brown sugar or 1 cup honey
1 quart juice*

Melt the butter or margarine. Absorb it with sugar or whip in the honey. Whip in the juice. Heat over a low flame until the sweetening dissolves and the syrup is the consistency you desire.

Uptown Apricot Syrup

*1 cup butter or soy margarine
1 1/2 cups sugar or 1 cup honey
1 quart apricot juice
1 pint apricot brandy*

Use the same method as the basic syrup. Add the brandy while the syrup is thickening.

Baba Syrup

*1 cube butter or soy margarine
1 pint flavored brandy or liquer
1 pint rum
honey or sugar to taste*

Substitute the spirits for the juice. I know a Russian lady who uses all rum. She marinates a plain white cake with the syrup then frosts it with whipping cream. Simple but exquisite.

Fresh Fruit Syrups

Aren't that much harder. Increase the preparation time by how long it takes to cope with the fruit. Add a sharp knife and juicer to your equipment.

Lemon Syrup

*1 cube butter or soy margarine
1 1/2 cups honey or sugar
2 cups lemon juice
2 cups water*

Again it's the same method as the basic syrup recipe. Squeeze your own juice and dilute it.



Berry Syrup

*2 pounds berries
1 cup honey
1 cube butter or margarine*

Mash 1 3/4 pounds berries with the honey. Melt the butter or margarine. Add the mashed berries and stir well. Adjust the honey to taste. Dilute to taste with wine juice or water. Stir in the whole berries before you serve the syrup.

Orange Syrup

*1 cube butter or soy margarine
2 quarts orange juice
1 cup brown sugar or 3/4 cup honey*

Squeeze the juice then reduce it, by cooking, to 1 quart. Reduce the sweetening.

Apple Syrup

*1 cube butter or soy margarine
1 1/2 cups honey or sugar
1 quart apple juice
or
2 cups juice and 2 cups puree
4 apples
1 tablespoon cinnamon
1 cup currants*

Peel and cut the apple into chunks then add it to the syrup with the cinnamon and currants.

Make those pancakes and waffles shine! Use maple sugar, pureed fruits, dried fruits, extracts, nuts. Think of chocolate peppermint syrup over ice cream. One of my favorites is:

Baked Apples

This recipe takes about 35 minutes. You need an apple corer, small bowl, dinner knife, baking dish and the following ingredients:

*6 large apples
1 1/2 cups swiss style cereal
12 pitted dates
1/2 cube butter or soy margarine
1/4 cup honey
2 cups apricot syrup*

Core the apples. Cut the butter into the cereal then stir in the honey. Put the apples into a baking dish. Put 2 dates into the cavity of each apple. Fill the rest of the hole with the cereal mixture. Pour syrup over the apples. Bake at 350° for 25 minutes. Baste frequently.

Organic Gardening

Planting Parameters



© by
Bargyla Rateaver
a sole trader.

This is the time of year when you are planting or transplanting bare root trees and shrubs with balled roots as they come from nurseries. Take the time and effort to do it so that you will be rewarded in the immediate future with spectacular growth and disease resistance. Do this with a hole large enough for ample root spread, and provide the early nourishment that gives strength. Nature has given you an example, from the soft forest litter bed, deep with nutrient-loaded humus into which a ripe seed nestles, to the mother insect which deposits her eggs where they will be surrounded by assimilable tissue, to the human baby whose future health is guaranteed by the initial supply of colostrum.

A bare root fruit tree comes trimmed to the minimum: a whip with three or four stubbed branches. These are to become the scaffold branches which will be the major framework of an open, bowl-shaped tree in maturity. Don't touch these unless broken, in which case you will have to make a clean cut just above an outward turned bud. The roots are a stubbed mass of a few roots, just enough to balance the top. They will be packaged in moist sawdust or peat, and must be left so until the very last planting moment—unless they have become somehow dried out, in which case they must be stripped of packaging and soaked in water for 24 hours—unchlorinated water.

Now dig the hole, 3 to 4 feet wide and deep, or bigger. If the spot is mostly rock or overlies cementlike hardpan, drill holes out and down through the obstruction so that your planting hole does not become a sump. At the bottom lay some tile pipes or large stones for best drainage. Here you can also dump your old leather shoes or moth-eaten wool pants, battered felt hats. Cover all this with the best mixture you can afford to gather or buy: compost, rock phosphate, granite dust, cottonseed meal, coffee grounds, fossil compost, seaweed, fish meal, alfalfa meal, cotton gin trash, rice hulls, peanut hulls, etc. Six inches or so of this should be overlaid with stones, fist size. Again a layer of the good mix, and cover this with plain topsoil, in which you are to plant your tree. Get a large pail of mud and a pair of pruning clippers.

Pick up the packaged tree and look for the lumpy knob near the base of the trunk, which is the graft union. This must be kept well above the soil surface when planted, so gauge with your eye if you need to put in more topsoil to bring up the planting level. Now unwrap the tree and check the roots so you can cut off any bruised or bent spots. Here you simply must be ruthless; you cannot afford to leave any crushed tissue to rot. Then cut off the tips of all the roots. (This will stimulate the wound hormones to make

new roots.) Stand the tree in the mud so the roots are covered with it and will not dry out as you plant it.

Set a large stone, head-size, in the center of the hole and arrange the roots of the tree over the stone, spreading them carefully and straightening so that they can radiate out unbent. Now apply topsoil to fill in the interstices, patting it in between the roots and over them so as to leave *no airpockets*. Fill the hole with topsoil to within a couple of inches of the soil surface. Fill up the basin with leaf mold or shredded leaves. If this is a windy area, or the tree is the type with shallow roots which uproot readily, you need to insert an extra step: after covering the roots, set a few more large stones in a circle over the covered roots, before filling the hole with topsoil. This will give extra anchorage to the mature tree.

You need to provide a protection for the tree trunk, so that nothing ever touches it. Make a cylinder a foot or more high of hardware cloth or screening or aluminum sheeting; or use a spiral strip of metal; or slit open a topless and bottomless tin can No. 10 size. Set this to surround the base of the trunk, making sure the graft union is protected and not abraded, and keep the interior of this guard always empty. The anatomy of a stem and that of a root are quite different, and while the root is designed to be surrounded by moist soil, the trunk is *not*, and will rot if covered.

Outside this guarding barrier pile the leaf mold several inches high and in a circular band several feet wide. Cover this with large stones, which you will be removing once or twice a year to renew the underlying carpet of leaves or leaf-mold. Set an irrigation system going to wet this entire area; lay a Dew-Hose in a spiralling circle over the stones, or turn on a very low-spraying sprinkler, or invert a hose-connected nozzle. Let the water run all day to be sure the soil is wet all the way down, and do this once a week for months. Every tree or shrub needs regular watering once a week or every 2 to 3 weeks until it is well established.

The reason for the special planting technique is definite. You plant on a large stone to keep the roots from spiralling, as they do in a container when potbound. Dr. Metcalfe said he knew of trees which had been planted in the forest 25 years ago and could be easily pulled up by hand because the main roots, having started to spiral in the nursery cans, never "unlearned" the habit and simply enlarged to thick coils.

You plant in topsoil rather than enriched compost because the roots have to get over the shock before they can take advantage of the goodies by growing feeder roots into the deeper soil and the surface

mulch. An invalid when recovering is given custard and liquids, not steak, until he reaches the point where he can assimilate it. The final stone mulch keeps the soil beneath moist and of even temperature without the damaging wide fluctuations from day to night, and earthworms love the coolness.

In spring, stones gather heat from the sun and release it at night, and the flowing warmth of the ambient air helps prevent early frost injury. Decaying leaves engender organic acids which steadily erode the lower stone surface, dissolving off minerals which leach into the soil filled with feederroots.

Citrus Crown Rot

There is one exception to this planting technique, and that is with citrus trees, which are extremely particular about not having any moisture at the base of the trunk, or they develop crown rot, a slimy mess which eats away the tissues there. Fill the hole with topsoil over the compost mix as above and make a slight mound above that; plant the citrus tree in the top of the mound. Scoop out a moat, ring-shaped, around the mound and fill that with leaf mold and top with stones. This will give extra drainage to the root region. Protect the trunk also with the guard as above. Citrus needs as much water as any other plant while young; when older it needs thorough watering only once in 3 weeks, but use plenty of fertilizer.

If you have many trees, plan something systematized so you don't have to spend so much time watering. Dig trenches and put in the Fas-Gro pipe system, which has sleeved perforations to let water seep out without danger of dirt's clogging the holes; or use the Roberts above-ground system which sets a tiny spearhead at each tree; or trail the Dew-Hose from tree to tree and let water seep out the stitch holes.

Drip irrigation is popular now, too, and there are several makes of equipment for it—ask the farm advisor for your county. In cold climates these must all be removed for the winter, as ground freezes three feet deep. If you have a whole orchard, you can use a continuous hose with

sprinkler or drip heads at each tree, on the soil surface (a "drag line" you can readily move) while trees are small. When they are older you may want to have rigid pipes with taller spitter heads, or drippers. For shrubs in a row you can use plastic hose with drip inserts poked in wherever you want them all along the line, but these are popular mostly in year-around mild climates.

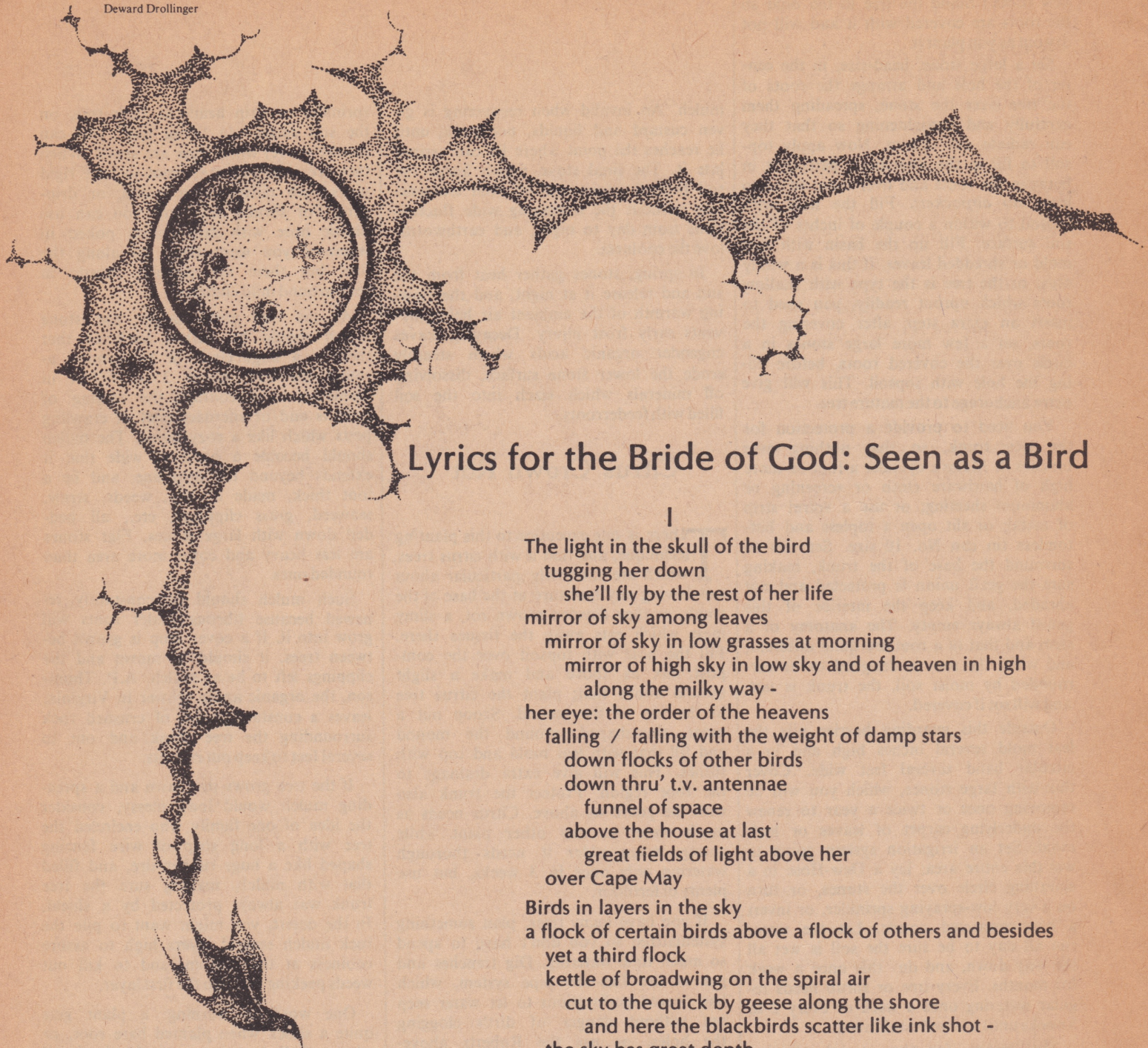
As the tree grows larger, the stone mulch should be pushed back so that there is a large circle of bareground around the tree, about 3 to 4 feet in diameter, to discourage the nesting of rodents and/or encroachment of crawling pests which like a cozy home. The mulch should become a band so wide that it extends beyond the drip line, and be a foot thick, made of hay, weeds, straw, seaweed, grass clippings, etc., all bedded down with large stones. Flat stones are less heavy and cover more area than rounded ones.

Such mulch should be constantly renewed because fibrous feeder roots will grow into it. If a cover crop is grown between trees, it should be mown and the clippings left to lie as mulch. A.P. Thomson, the organic apple grower in Virginia, leaves a constant mulch of crushed rock surrounding the tree trunk and out to several feet to keep out rodents.

If the tree grows in a lawn and a spreading mulch would look messy, consider the idea of one family who encircled the tree with a long strip of wire fencing shaped like a huge rubber tire, and filled that with mulch, making sure the tree trunk was always protected by a shield. In the desert, you might want to pile the rock mulch several layers high to assure coolness at the bottom, and to kill out weeds peeking through the first layer.

One word of warning: a plant gets quite a shock when planted bare root, or when a balled root mass is freed of soil so roots can be spread over a stone. For weeks the plant may yellow, drop its leaves, and look as though it were dying. But hold tightly to your patience; one day you will see a million new shoots all over the branches, when the feeder roots have finally taken hold and discovered the paradise they have prayed for is right there, just waiting for them. And they will grow ten feet the first year. Dwarfs will forget what they are and grow 8 feet.





Lyrics for the Bride of God: Seen as a Bird

I

The light in the skull of the bird
 tugging her down
 she'll fly by the rest of her life
 mirror of sky among leaves
 mirror of sky in low grasses at morning
 mirror of high sky in low sky and of heaven in high
 along the milky way -
 her eye: the order of the heavens
 falling / falling with the weight of damp stars
 down flocks of other birds
 down thru' t.v. antennae
 funnel of space
 above the house at last
 great fields of light above her
 over Cape May

Birds in layers in the sky
 a flock of certain birds above a flock of others and besides
 yet a third flock
 kettle of broadwing on the spiral air
 cut to the quick by geese along the shore
 and here the blackbirds scatter like ink shot -
 the sky has great depth
 the depth opens on without end higher and higher:
 Alighieri describing the major angels as birds of God:
 take here the little birds for the kingdom of heaven,
 the little birds for the banners of God
 and say what we love about them is simply the system:
 that they are all of one set, yet different colored,
 id est - diversity within unity, heraldic counterpoint
 of certain colors where others are expected to be
 -my dream as a child, the interchange of colors -
 what gives my mind peace, my mind peace, my mind peace
 immense fields of light traversed by angels

///over Cape May ...

In the Hebrew Kabbalah, the Female Principle of God, or Shekhinah, fetches the soul-sparks exiled in each member of Israel on the Last Day and returns them to God. In the *Lyrics*, the Shekhinah is treated both as a theological principle *and* as a very living woman, with many metamorphoses: she becomes, in various parts of the sequence, a child, a Black woman, the Virgin Mary, Aphrodite and so forth. Here she is seen as a bird.

-N.T.

II

Seeing her as a bird,
 looking within that mind
 for the cut of our sparks in each mirror shard
 her flight breaks over and over
 as she tumbles down
 thru' cloud, thru' stricken dawn dark, and bait and lure

if she be (for example) that one-eyed falcon, sparrow-hawk,
 bird of the year, so must in nest have lost
 one half of strike force within the head
 yet falls on sodden sparrow in his trap
 waiting her tear of talons and her take
 his cheep towards
 his and her father both.

We'll have, above all: her movement
 and her descent, layer on layer,
 thru' the bright cloud of our blood
 and the exact description of her rapine
 when she comes to fetch us
 fingernail by fingernail
 I mean of course talon.

Look long ago the sky had many birds
 look long ago the sky had many colors
 and now we have the chicken only
 and the sparrow like an aerial rat
 we mourn like antiquarians for the sky's colors
 while the rest of the world makes do.

III

And she is bird, falling,
 and I am bird, passing from behind that branch
 to this branch in front of your eyes, and you are bird,
 hopping to middle branches in a three-tiered forest
 and he is bird flits to the first branch in the foreground of (//)
 your alien life under heavenhome:

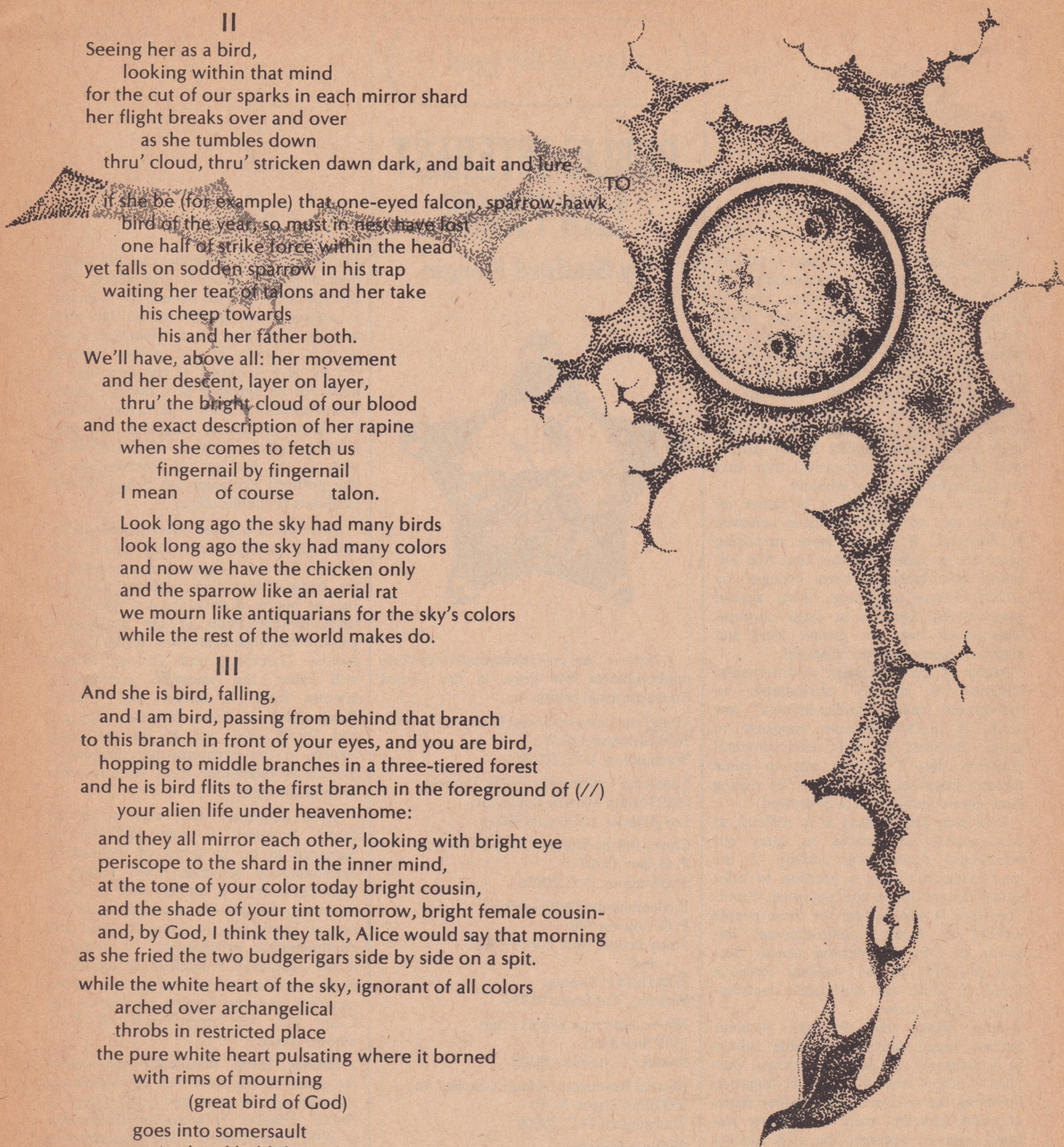
and they all mirror each other, looking with bright eye
 periscope to the shard in the inner mind,
 at the tone of your color today bright cousin,
 and the shade of your tint tomorrow, bright female cousin-
 and, by God, I think they talk, Alice would say that morning
 as she fried the two budgerigars side by side on a spit.

while the white heart of the sky, ignorant of all colors
 arched over archangelical
 throbs in restricted place
 the pure white heart pulsating where it bourned
 with rims of mourning
 (great bird of God)

goes into somersault
 revised and held thereafter
 and, looking down -

buckle of elbow forward
 drag back of pinions in the wind
 slow crash at twilight angles -
 slow falls to grasses like the dying snow.

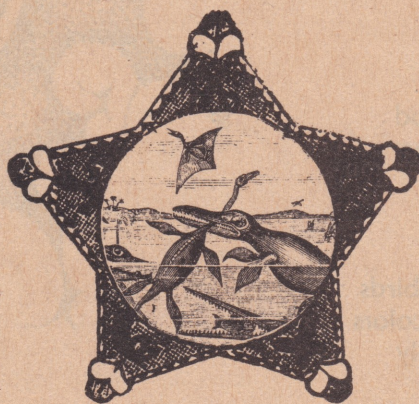
—Nathaniel Tarn



Law of the Land

PUBLIC-INTEREST LAW FIRMS

by Stafford Keegin



The fact of the matter is that it usually costs far more money to successfully prosecute a lawsuit against one who is damaging the environment than most people or groups are able to afford. The reason is twofold: First, litigation is an extremely expensive, inefficient, and time consuming technique; and secondly, the non-legal research and scientific analysis required for environmental litigation is often of a considerably higher calibre (and therefore more expensive) than that involved in other types of lawsuits.

In view of these facts it is rather incredible that so much has been achieved by litigation. It is even more surprising when one considers the fact that this litigation has generally been brought by private citizens or groups, often against governmental agencies or large corporations which have far greater legal and financial resources at their disposal.

Much of the successful environmental litigation is directly attributable to foundations called "public-interest" law firms. It quickly became apparent to people involved in early environmental litigation that if success was to come through litigation, a technique for raising large sums of money had to be devised.

It is well known that it is difficult at best, perhaps impossible, to carry out meaningful fund-raising activity if the fund raiser is not in a position to offer a tax deduction to the potential donor. Therefore, it was natural for those people seeking to finance environmental litigation to form foundations (under Section 501(c)(3) of the Internal Revenue Code) to which tax deductible contributions could be made.

Thus, when the Internal Revenue Service began denying favorable rulings to foundations, the sole or principal purpose of which was to engage in litigation involving the environment or other issues of public concern, there were many justified cries of outrage; the IRS quickly reversed its suspension and issued a new set of guidelines regarding public-interest law firms (I.R.S. News Release No. 1078, 11/12/70, 707 CCH P6943G).

Briefly stated, a public-interest law firm must engage in litigation, on a non-fee basis, that can reasonably be said to

represent a broad public interest rather than a private interest, and which does not provide a private benefit for a donor. In addition, the public-interest law firm must be controlled by a committee which is representative of the public interest, not the staff litigators of the firm, and it must not be operated in a manner which would identify it with a particular private law firm. Of course, there are also prohibitions which apply to all foundations, such as the bar against intervention in any political campaign on behalf of any candidate for public office.

There are a number of environmentally-oriented, public-interest law firms, and one of the most active and successful is the Natural Resources Defense Counsel, Inc. Its board of directors is a well-diversified representation of the mildly-progressive establishment: Drs. Rene Dubos, Joshua Lederberg and George Woodwell from the scientific community; lawyers Boris I. Bittker and Charles Raich (both of Yale), Stephen Duggan, and David Sive, one of the real legal leaders in the environmental movement; as well as luminaries from various other fields of endeavor.

More important than who is on the board, however, is what NRDC has managed to do in terms of meaningful environmental activities. Their record is impressive. With a limited staff of seven attorneys, NRDC has managed to prosecute or participate in about 25 legal and administrative proceedings. In addition, it has conducted a number of significant studies relating to the Refuse Act permit program and the implementation of the Clean Air Act amendments of 1970, among others.

Besides being principally responsible for some of the truly key environmental victories of the past few years (such as *Scenic Hudson Preservation Conference v. FPC*, and *Calvert Cliffs Coordinating Committee v. AEC*), NRDC has tackled clear-cutting in Alaska, the proposed Los Angeles International Airport in the Mojave Desert, dumping in the Atlantic Ocean, a proposed development on Long Island, stream dredging in North Carolina, and many, many others.

A few of the environmentally-oriented, public-interest law firms in the United States are listed below:

Center for Law and Social Policy
1600 20th Street N.W.
Washington, D.C. 20009

Center for Law and the Public Interest
10203 Santa Monica Boulevard
Los Angeles, California 90067

Center for the Study of Responsive Law
P. O. Box 19367
Washington, D.C. 20036

Environmental Defense Fund
P. O. Drawer 740
Stony Brook, New York 11790

and
2728 Durant Avenue
Berkeley, California 94704

Native American Rights Fund
1506 Broadway
Boulder, Colorado 80302

Natural Resources Defense Counsel, Inc.
1600 20th Street, N.W.
Washington, D.C. 20009

Public Advocates
433 Turk Street
San Francisco, California 94102

Sierra Club Legal Defense Fund, Inc.
311 California Street
San Francisco, California 94104

NRDC has not been choosy as to the manner in which it gets involved. It will be the plaintiff or represent the plaintiff; it will serve as lead counsel, co-counsel, or counsel for an intervening party; or it will file an *amicus curiae* brief. NRDC can be counted on to make imaginative appearances before administrative agencies, either in an advisory capacity or seeking an administrative remedy or affirmative act. NRDC is a recognized authority on Capitol Hill with regard to many environmental issues.

One of the more novel techniques by which NRDC has employed its services has been its representation of the City of Bowie, Maryland. The town of Bowie passed an ordinance requiring deposit on disposable beverage containers. This ordinance was quickly challenged by a series of lawsuits brought by well-financed opposition parties. Bowie, a relatively small community, was faced with the ominous and onerous task of defending against these challenges or losing its ordinance by default. The town is not able to afford full-time legal assistance in matters of this type: it employs only a part-time city attorney. In what may be the first instance of this type of activity by a public-interest law firm, NRDC is providing Bowie with its defense representation.

The significance of the contribution to Bowie by NRDC should not be overlooked by anyone who is facing an environmental crisis which may be solved by litigation. NRDC, and a number of other public-interest law firms, may be willing to make their services available to do battle for a worthy cause, regardless of who the party or parties involved may be. If you are able to get such a firm to participate in a legal action, you are fairly certain to get some of the most knowledgeable representation available in the legal community.

EPA Sets Rules for Civil Suits

The Environmental Protection Agency recently issued its final guidelines for civil suits in the form of amendments under the Clean Air Act. The new rules spell out the procedures to be followed in serving notices of lawsuits to individual States, alleged violators, the Administrator, and appropriate EPA regional administrators.

For copies of the new regulations write the Environmental Protection Agency, Washington, D.C., 20460.

SAVE THE TREES



OSCEOLA, NEVADA—

Last month *Clear Creek* ran an article about the Bureau of Land Management's destruction of the pinyon-pine trees, traditional food source of the Western Shoshones on their Nevada treaty lands. For those of our readers who wanted to help, here's how: Send letters and petitions opposing the chaining of the trees (which will be presented to the Secretary of the Interior) and address them to: Rolling Thunder, Box 707, Carlin, Nevada, 89822.

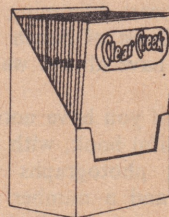
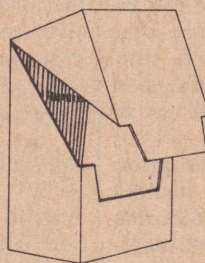
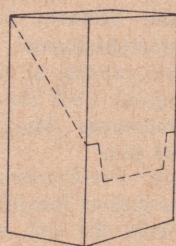
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Books

Edge of a Continent.

Don Greame Kelley. American West Publishing Company. \$17.50.

Water and land know no dotted lines as boundaries, and perhaps the most interesting of all maps to me are those which show no man-made divisions. Don Kelley's book, *Edge of a Continent*, is a description of the Pacific Coast from Alaska to Baja, and certainly the most basic and elegant value of this book is its grasp of the biologic and geologic actuality of this curving interface of sea and continent.

The book is integrative; it delineates on the grand scale those forces which determine the face of the coastline: the passage of geologic upheaval, the changes wrought by moving water, both fresh and salt, and the constant climatic cycles which the tides and winds cause.

Having described the setting, Kelley proceeds through the many micro-regions in chapters such as: Life Beyond the Breakers, Edge of the Tide, Seaciff World, Islands Beyond the Edge, Waters of the Golden Gate, Forests of the Fog, Elfin Forests of the South, and Deserts by the Sea. Each of these and others contain a portrait of the shape, climate, flora and fauna of naturally described regions.

For those who know diverse parts of the coast, *Edge of a Continent* is a joy as a survey into which all knowledge can be fit as into a fine pattern. For those who have spent years becoming intimate with the Pacific Coast of North America, it is a book you have always wanted to see in print.

It is also, if you have noticed the price, a very beautiful book, with a fair number of stunning photographs of California landscapes, and a number of fine maps. Clearly, one of the likeliest places for the book is in libraries and environmental centers.

Edge of a Continent is a compendium of information about the whole of the coast, but it is also a very appealing book. Kelley leads you through each region, oak woodland or tidal pool, as if he were taking you on a day's walk through it, and with a sensitivity and exuberance which easily conveys his own devotion to it. I hope it is one of the first of more books with such a broad regional perspective.

—Phoebe Martin



Edge of a Continent—"a description of the Pacific Coast from Alaska to Baja."

Origin of Eukaryotic Cells

Lynn Margulis. Yale University Press. \$15.00

It would be difficult to decide whether to place Margulis' book on the shelf next to Kropotkin's *Mutual Aid* or next to Francis Crick. The book is no doubt one of the first statements in a revolution that will rock the Sciences and then the Arts and Social Sciences. Despite the difficulty of microbiological terms and concepts, anyone capable of reading *The Origin of Eukaryotic Cells* should certainly do so. Sometimes Margulis' prose shines like a black gem:

"In the late Pre-Cambrian, organisms of all descriptions inhabited the seas and lakes, covered the soil, and formed spores in the air. Some resembled free-living spirochetes, some resembled free-living aerobic eubacteria, and some resembled today's mycoplasmas."

In the 19th century when microscopes had been sufficiently developed scientists noticed that the organelles in cells resembled free-living organisms and that the cell seemed to be an assemblage of smaller independent organisms evolved together into a unit.

This view was offensive to the new converts to Darwinism and the insight was swept under the rug. Margulis presents

in great detail her compilation of information and research proving that the higher cell—any cell of any creature or multicellular being above microbe level—is indeed a combination of symbiotic partner that have evolved together. She demolishes, with facts, the idea that there is an evolutionary step between the primitive prokaryotic cell and the higher nucleated eukaryotic cell. She establishes the separation between the prokaryotic and the eukaryotic cell as the major division of life. This theory replaces the traditional split between plant and animal kingdoms. Animal cells are basically symbiotic associations of three partners evolving together and plants are the same symbiotic cluster, but with the addition of a chlorophyll organism similar to the blue-green algae microbe.

Our scientists and social scientists have leaned heavily on a crude understanding of Darwin rather than on the subtleties of Darwin's thought. They have seen competition in *all* things. Margulis' work should force every science to re-examine itself for gross error—such as she has discovered in biology. The social sciences which have always been crudely Darwinistic or Behaviouristic should follow suit—and the same with the Arts. In Margulis' work there is, by inference, a solution to the *mechanist/vitalist* controversy over the nature of living matter. The simple prokaryotic cell is relatively inert and

mechanical. When prokaryotic cells combine in symbiosis there is a "spiritual occasion" and the meat, the cytoplasm of the cell begins to flow—to move with obvious self volition and make complex swirls and streamings. This book is an extraordinary, beautiful new vision for those who can follow it—and a treasure for anyone interested in frontier science.

—Wolfgang Breed

Environment, Power and Society

Howard T. Odum. Wiley-Interscience Press. \$6.95

When H. T. Odum uses the terms *Environment, Power, and Society* as his book's title there is no metaphysics involved. Power is specifically *power*—solar power, fossil fuel power, hydro-electric, or nuclear fusion or fission. *Environment* and *society* are spoken of equally concretely. This book is, with *Orgin of Eukaryotic Cells*, one of the most important books of recent years—for anyone—artist, scientist, or laborer. It is a valuable guide or text for anyone who reads it. It is the most concrete guide to systems since *Cybernetics* and is in fact much more accessible, free of math, and wide as the world in scope.

Odum is precise and dispassionate and clings with exactness to the vocabulary in the specific manner that he uses it. Chapter One and Two are excruciatingly dull but they prepare the reader for Odum's flights of perception, insight, and sometimes vision. The book is never easy but after Chapter Two it sails—particularly if it is read aloud, and it is certainly worth that effort.

The section called *Potatoes Partly Made of Oil* is breathtakingly concise and brings home the point that man can be seen as a fossil fuel parasite creating his foods with injections of fossil fuel into the agricultural processes. Odum discounts the idea of an 'Industrial Revolution' and sees instead that the term signifies the opening of a period of massive consumption of high energy fuels. Odum's thought is magnificently unique and uncluttered. He investigates with concision and depth dozens of systems from the energy loops of trees and their complementary soil bacteria to the functional work of religions in societies.

There are flash insights to boggle the tradition-oriented mind: "If the origin of life was a step-by-step capsulation of the loose circulation of molecules in the sea as suggested, the earliest forms must have been so large and have had so little

structure that they left little in the fossil record."

The abundant diagrams in the book may not be found esthetically pleasing. If the reader is not offended by them they will be found to be odd, useful, and certainly thought-provoking. Odum's writing is so clear and precise that the diagrams are hardly needed though the writer makes constant reference to them. Some of the diagrams are interesting as games are. They are more interesting after reading the text.

In *Environment, Power, and Society* one may find out everything from why hydroponics is impractical to why the sacred cows of India are ecologically practical. Odum sees all life relationships in terms of loops of production and return feeding each other in anti-entropic movements of varying success. The sections on stability of complex relationships such as human societies and ancient African lakes are fascinating.

This book is extremely practical—in reading it one is introduced to the ability to see systems of his personal life as well as environment—such a view can be the beginning of improvement. If there were half a million men as clearheaded as Odum we would be in no trouble today.

—Wolfgang Breed

Earth Tool Kit: A Field Manual for Citizen Activists

Sam Love, et al. Pocket Books
Paperback. \$1.25

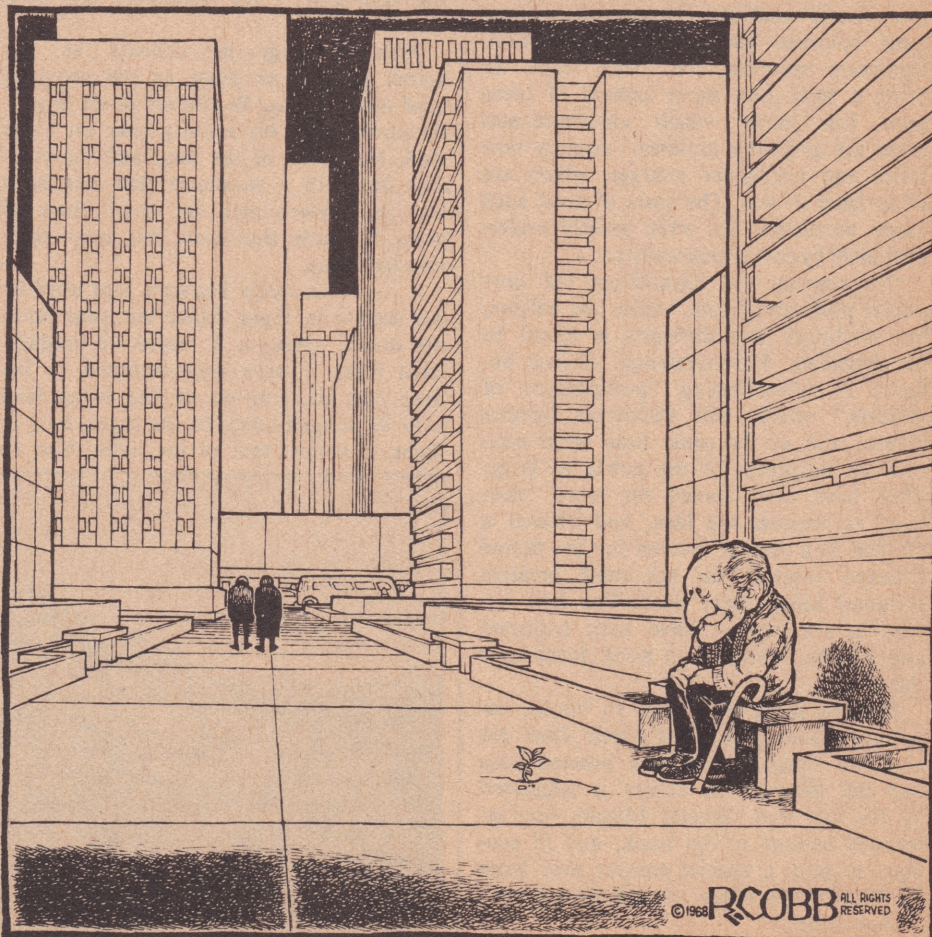
One human being breathes in 2600 gallons of air every twenty-four hours; he consumes about five pounds of liquids and solids during the same time period. As long as he is so tied to the things around him, he must learn to live with them, learn from them, and protect them. Books like *Earth Tool Kit* will help him do this.

Friends of the Earth's *Environmental Handbook* was a good step in raising awareness of our deteriorating environmental situation. It had the great added attraction of being available as an inexpensive paperback edition.

Earth Tool Kit, prepared by the organizers of Earth-Day-1970, is a logical next step in getting ourselves straight with the Earth. This is not another book about what is wrong. It is instead a book about the things we can do against pollution and polluters.

Strategy is, of course, a major consideration. *Earth Tool Kit* deals in part

—Continued on next page



Books

—Continued

with organizing individuals and groups with environmental concerns, with collecting information, with raising money, equipping an office, even with writing a press release, picketing, composing petitions, leaflets, etc.

Fortunately, this doesn't read pedantically as it might sound, and nearly every page shows a lot of thought has gone into recommended tactics. Many of them are good. One, for instance, concerns presenting a public official with signatures on a petition. This should be done in public, and representatives of the press should be invited. If none of the press show up, however, have one of your own staffers pose as a reporter and take pictures. All the politician will notice (besides, hopefully, the petition) will be the flashbulbs.

The fifteen pages on lawsuits will be a definite aid to any environmentalists considering taking polluters to court. The difficulties which can be expected are all too clearly outlined. Aggrieved citizens must consider questions of jurisdiction, legitimate standing (i.e., their right to bring a suit), and those aspects of common law under which environmental cases are generally initiated—notably nuisance and negligence charges, which are often hard to win. The costs of most such cases, moreover, are often greatly underestimated by environmentalists.

"No manual for harassment [of corporate polluters] exists," write the editors, but obviously this difficulty is about to be remedied. Environmental Action believes in life-affirming "perturbation of systems," which will embarrass proper villains and at the same time serve educational purposes for the public at large. They have even coined the word "ecotage" to express the idea, and offered a Golden Fox Award (named for the famed Chicago ecoteur) for the most creative proposal along these lines. The best entries in the contest have been collected and will be published in book form later this year.

Reviews never do justice to books, especially good ones. That *Earth Tool Kit* contains something besides pressed pine and ink between its covers is suggested by the fact that General Motors was interested enough in the book, and in ecotage, to send a special courier over from its Washington office to pick up an armload of copies.

The Outermost House

Henry Beston. Ballentine Books. \$.95.

"My house completed, and tried and not found wanting by a first Cape Cod year, I went there to spend a fortnight in September. The fortnight ending, I lingered on, and as the year lengthened into autumn, the beauty and mystery of this earth and outer sea so possessed and held me that I could not go. The world today is sick to its thin blood for lack of elemental things, for fire before the hands, for water welling from the earth, for air, for the dear earth itself underfoot. In my world of beach and dune these elemental presences lived and had their being..."

His isolated Cape Cod cabin full of yellow sunlight reflected from the sands outside, Henry Beston sat at the kitchen table writing in longhand. The year was 1928.

"My house stood by itself atop a dune... I drew the home-made plans for it myself and it was built for me by a neighbor and his carpenters... It consisted of two rooms, a bedroom and a kitchen-living room, and its dimensions overall were but twenty by sixteen. A brick fireplace with its back to the wall between rooms heated the larger space and took the chill off the bedroom... My neighbor had built well."

With language as delicate as the marsh grasses, as clean as the scouring sand and salt sea, Beston set down a gentle chronicle of his solitary year on Cape Cod. He wrote of the land and its precious life with a reverence that has been lost on modern man for more than 40 years. But now, this book, this man—their time has come.

"...no one really knows a bird until he has seen it in flight. Since my year upon the dunes, spent in a world of magnificent fliers, I have been tempted to believe that the relation of the living bird with its wings folded, to the living bird in flight, is almost that of the living bird to

the same bird stuffed. In certain cases, the difference between the bird on the wing and the bird at rest is so great that one might be watching two different creatures. Not only do colours and new arrangements of colours appear in flight, there is also a revelation of personality. Study your birds on the ground as you will, but once you have thus observed them and studied their loveliness, do not be afraid to clap your hands and send them off into the air. They will take no real alarm and will soon forgive you. Watch birds flying."

While America passed through suspicion, awe and fascination toward boredom with the automobile and made Progress a religion, there were a few men who felt the wrongness of the direction. And now that cars are beginning to lose power on Los Angeles freeways because of oxygen shortage, we are at last seeing with their eyes, sharing the knowledge they left us. We wish, with a yearning that stretches back to the cave, to be again among grasses and birds.

"Remote from universal nature," Beston wrote, "and living by complicated artifice, man in civilization surveys the creature through the glass of his knowledge and sees thereby a feather magnified and the whole image in distortion. We patronize them for their incompleteness, for their tragic fate of having taken form so far below ourselves. And therein we err, and greatly err. For the animal shall not be measured by man. In a world older and more complete than ours they move finished and complete, gifted with extensions of the senses we have lost or never attained, living by voices we shall never hear. They are not brethren, they are not underlings; they are other nations, caught with ourselves in the net of life and time, fellow prisoners of the splendor and travail of the earth."

We need another and a wiser and perhaps a more mystical concept of animals, Beston wrote. If he could see us today he might add, "and of ourselves."

—Don Baumgart

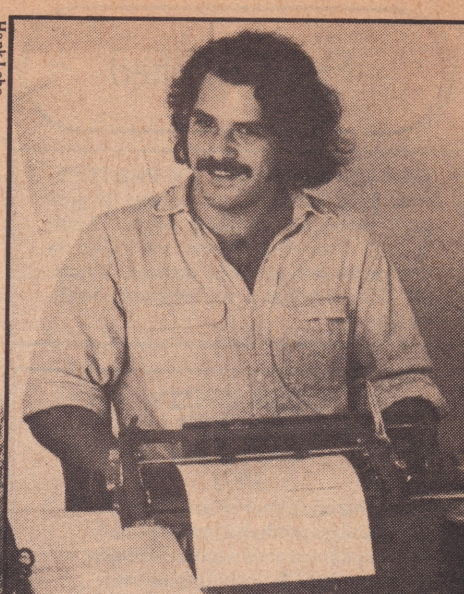




Margo Hinton



Roger Lubin



Hank Lebo

AUTHORS NOTES

Roger Lubin is a free lance photo-journalist and a *Clear Creek* contributing editor. He was once a management consultant and expert in government finance, but he says he atoned for this by playing 12 string guitar in a country and western band.

Margo Hinton, a former editor for *Earth* magazine, is currently a free lance writer based in Marin County.

Stan Gwain Adler is author of *Words*

For Some Lost Reason (segments of which have been recently published). A California native, he has been a San Francisco State student, construction worker, researcher and script writer for American Zoetrope. His log book records, "sun in Hawaii, Mexico City, Baja. Now living in Mill Valley with his lady, carefully watching flight of jays."

Michael Perelman is an agricultural economist who teaches at Chico State College. He says, "Fortunately my ad-

visors took an extra couple of years to read my dissertation. This gave me the opportunity to learn about ecology before I had thoroughly swallowed conventional economic dogma."

Hank Lebo, *Clear Creek's* muckraking resident photographer, used his Naval Intelligence training to expose Boise Cascade's shady land practices in CC No.6. He started at the *San Francisco Chronicle* as a copyboy and is now a freelance writer and photographer.

Films

As Long as the Rivers Run

By Carol Burns, Produced by the Survival of the American Indian Assoc.

"As Long as the Rivers Run" is a look at the struggle of American Indians to protect their treaty rights, and the coming together of all tribes with a new awareness of their heritage. Unfortunately, we are too often told rather than shown. It's the kind of film you think you should be appreciating more, because of the authentic moral issue behind it, but which mainly gives information that could just as well be conveyed in a thorough article.

One of the problems is that the people in the film (the Survival of American Indian Association) seemed to have had too much control over the filmmaker-artist.. It has some of the self-indulgence of home movies, yet if the intention is to

rally support from a general audience, the film needs to be tighter and richer.

The central focus of the film is at Franks Landing in Washington where the government has been trying to prevent the Indians from fishing in the waters where they always have, thereby cutting off their major means of economic support. The Indians feel that the government is using the issue of conservation as a weapon against them, and as an excuse to renege on treaty obligations which date back to 1854. After the Indians could not get justice through the courts, they began demonstrating in the Tacoma area, and finally won a case which gave them limited fishing rights—but the fight continues.

The film does not deal deeply enough with the human drama beneath the surface. I wanted to know better the individuals at Franks Landing by seeing candidly and closely what their lives are like, perhaps by concentrating on only a few people as the conflict progressed, not hearing just a reiteration of grievances. The story is diluted with too many statements and haphazard shots, so that the material is indiscriminately thinned out (the film lasts an hour).

The director (Carol Burns) also glances at peripheral events, such as a brief sequence at Alcatraz, a class where Indian children learn tribal dances, and a funeral for a girl who drowned.

The footage is usually uninteresting visually, as if shot at random; (exceptions are in the boat going over to Alcatraz and several shots of the landscape). The use of a narrator (with an undynamic voice) and songs to cover much of the silent footage only distances us further from the reality going on.

Two examples of good, direct reporting are a scene in which two women stoically submit to arrest for fishing, and another arrest at the end of the film, using still photographs to heighten the intensity of the incident.

Still, with its flaws, "As Long as the Rivers Run" is one of the few recent films about the plight of the American Indian, and for the reason alone it should be seen.

—David Wiener

Available from American Documentary Films, 379 Bay St., San Francisco, Ca. 94133 (415) 982-7475 or 336 West 84th St., N. Y., N. Y. 10024 (212) 799-7440.



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FOR SUGGESTIONS ON PROTECTING THE EARTH, and ecology in general, write for "Smiling Eagle Handbook." Free—but please send 24¢ in stamps or cash to cover postage. Lynda, 27522 Ann Arbor Trail, Westland, Mich. 48185.

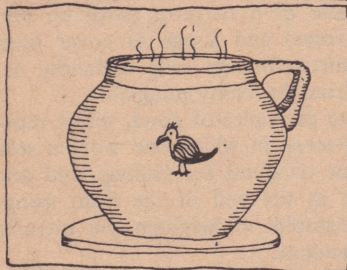
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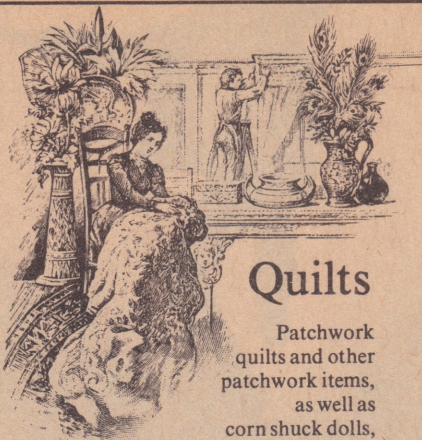


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about ten times more green than
animal life

250 million of us at the time
of christ
4,000 million in 1975
increasing 250 million in
3½ yrs

—well it seems to balance
all the animals gone since we came
along

blue whales took a lot of the slack
but great whales are nearly gone
and by 1999 more than half
the animals of earth
will be gone
forever

—Richard Felger
from *Antelope Dust*

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Miscellany

A FIRM GRASP

Our friends in Santa Fe published a monthly of clean, clear political-journalism—the *New Mexico Review*. Read it. No shit. Recent articles include: An Introduction to Hydrology; Women in Prison; a study of the unholy alliance of the police and the press of Santa Fe and the three killings of New Mexico youths by police this spring; The Ecopolitics of Electric Power; Health Care in the Southwest; and School Lunches: Food for Thought. Subscriptions are \$5.00 a year. Write to

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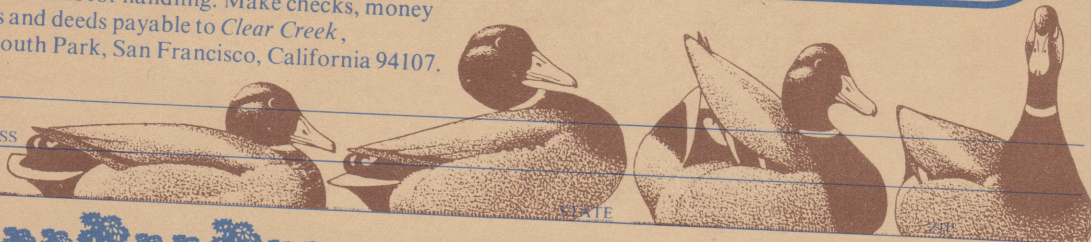
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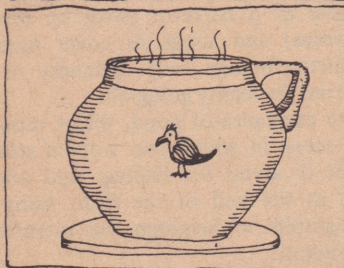
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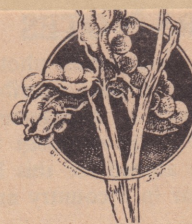
we
displace other animals

this planet of whales and men
supports only so much
about ten times more green than
animal life

250 million of us at the time
of christ
4,000 million in 1975
increasing 250 million in
3½ yrs

—well it seems to balance
all the animals gone since we came
along
blue whales took a lot of the slack
but great whales are nearly gone
and by 1999 more than half
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will be gone
forever

—Richard Felger
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